XR-5600

SERVICE MANUAL

US Model
Canadian Model
E Model

Model Name Using Similar Mechanism	XR-5550
Tape Transport Mechanism Type	MG-36AS1-32

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION 10 watts per channel minimum continuous average power at 4 ohms, 4 channels driven, from 30 to 20,000 Hz with no more than 1% total harmonic distortion.

Other Specifications

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	3.2 – 8 ohms
Maximum power output	20 W × 4 (at 4 ohms)*
	* Measured at 14.4 V

Cassette player section

Tape track	4-track 2-channel stereo
Frequency response	30 – 16,000 Hz
Signal-to-noise ratio	

Dolby B NR / Cassette type	ON	OFF
TYPE II, IV	66 dB	58 dB
TYPE I	63 dB	55 dB

Wow and flutter 0.13% (WRMS)

Tuner section

FM

Tuning range	87.5 – 108.0 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	12 dBf (75 ohms)
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 70 dB (mono)
Harmonic distortion at	1 kHz, 0.6% (stereo), 0.4% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz
Capture ratio	2 dB

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	450 kHz
Sensitivity	35 µV

General

Output lead	Power antenna relay control lead Power amplifier control lead
Tone controls	Bass ± 8 dB at 100 Hz Treble ± 8 dB at 10 kHz
Loudness	+6 dB at 100 Hz +6 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 186 × 57 × 170 mm (7 3/8 × 2 1/4 × 6 3/4 in.) (w/h/d), not incl. projecting parts and controls
Mounting dimensions	Approx. 182 × 53 × 154 mm (7 1/4 × 2 1/8 × 6 1/8 in.) (w/h/d), not incl. projecting parts and controls
Mass	Approx. 1.3 kg (2 lb 14 oz.)
Accessories supplied	Mounting hardware (1 set) Power connecting cord (1) Front panel case (1)

Design and specifications subject to change without notice.

使用時は添付資料も参照のこと
Refer to the additional documents.

FM/AM CASSETTE CAR STEREO

SONY®

Features

Tuner section
- SSIR (Sony Super Interference Rejection) PLL synthesizer tuner for precise tuning
- BTM (Best Tuning Memory) function automatically selects and stores the stations with strong signals on the preset number buttons in order of frequency.
- Memory preset tuning allows you to store a total of 30 stations.
- RDS information can be received.
- Memory scan function scans preset stations each for five seconds in order.

Cassette deck section
- The auto-reverse function changes tape directions automatically.
- Dolby B NR* system reduces tape hiss noises during tape playback.
- AMS (Automatic Music Sensor) function for automatically locating the beginning of a track during tape playback

General
- Detachable-front panel enables you to take the front panel away with you when you leave your car.
- With the built-in amplifier, you can enjoy a 4-speaker system.
- Line output for connecting an optional power amplifier
- You can choose an illumination color between amber and green.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

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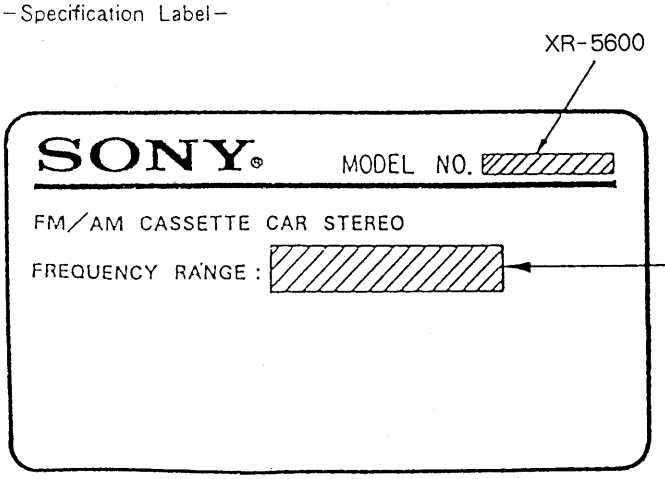
MODEL IDENTIFICATION

–Specification Label–



(US/Canadian)
FM87.9 – 107.9MHz
AM530 – 1,710kHz

(E)
FM87.5 – 108MHz
AM530 – 1,620kHz

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

ADVARSEL!
Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Lever det brugte batteri tilbage til leverandøren.

ADVARSEL

Lithiumbatteri – Eksplosjonsfare.
Ved utskifting benyttes kun batteri som
anbefalt av apparatfabrikanten.
Brukt batteri returneres apparatleverandøren.

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en likvärdig
typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt gällande
föreskrifter.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

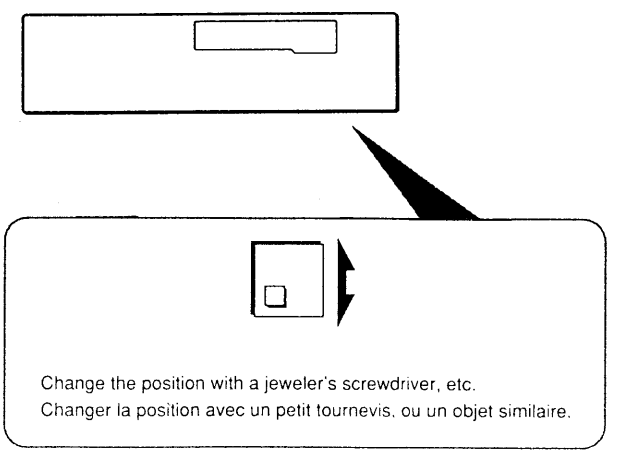
- Keep the temperature of the soldering iron around 270℃ during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Caution

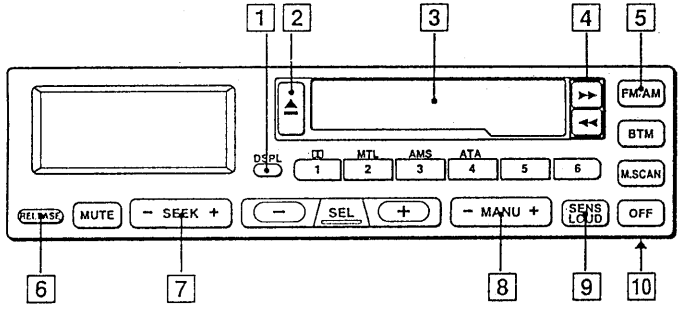
- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **red** power input lead only after all other leads are connected. Be sure to connect it to the positive 12 V power terminal which is energized when the ignition key is turned to the accessory position.
- **Run all ground wires to a common ground point.**

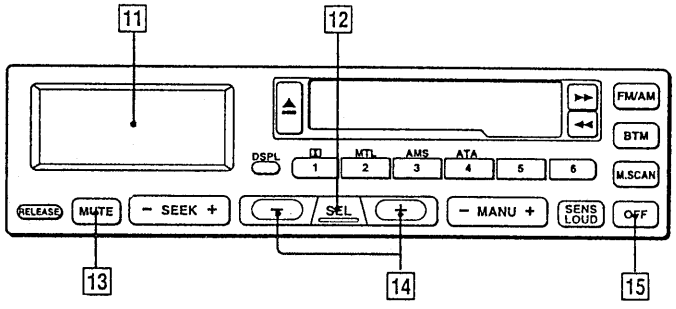
POWER SELECT Switch

The illumination on the front panel is factory-set to be turned on even when the unit is not used. However, this setting may cause some car battery wear **if the unit is used in a car with no accessory position on the ignition key lock.**
To avoid this battery wear in such a car. **Set the POWER SELECT switch, located on the bottom of the unit, to the OFF position.** The illumination is reset to stay off when the unit is not used.



Location and Function of Controls





Refer to the pages in ● for details.

1 **DSPL (display change/time set) button**

2 **≜ (eject) button**
Press to stop tape playback and to eject the cassette.

3 **Cassette insertion door**

4 **◀◀/▶▶ (fast winding)/DIR (tape transport direction change) buttons ⓫ ⓬**
During playback, press ◀◀ or ▶▶ for fast winding. or press both ◀◀ and ▶▶ simultaneously to listen to the other side of the cassette.

5 **FM/AM (radio on/band select) button ⓭**

6 **RELEASE (front panel release) button ❾**

7 **SEEK (automatic tuning) button ⓮**
Press the – side to search stations in lower frequencies and the + side to search stations in higher frequencies.

8 **MANU (manual) button ⓯**
Press to tune in the desired stations manually.

9 **SENS/LOUD (sensitivity/loudness) button ⓰**
Press for more than two seconds to reinforce the bass and treble especially when listening at a low volume level. To disengage the button, press it again for more than two seconds.

10 **POWER SELECT switch (located on the bottom of the unit)**
See the description about the POWER SELECT switch in the Installation/Connections manual.

11 **Display window**

12 **SEL (control mode select) button**
Press to select the desired control mode: BAS (bass), TRE (treble), BAL (balance), FAD (fader) or VOL (volume).

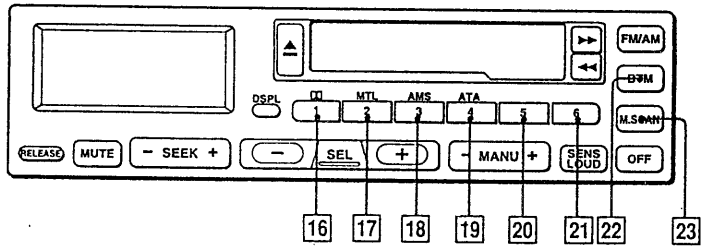
Display window	Control mode	Press ⊖	Press ⊕
BAS	Bass control	For less bass	For more bass
TRE	Treble control	For less treble	For more treble
BAL	Balance control	To decrease the right-speakers' volume	To decrease the left-speakers' volume
FAD	Fader control	To decrease the rear-speakers' volume	To decrease the front-speakers' volume
VOL	Volume control	For less volume	For more volume

13 **MUTE button**
Press to mute the sound momentarily. Press again to restore the same volume level. This button will be also canceled:
— when the a or OFF button is pressed.
— when ejecting a cassette by pressing the c button during tape playback.
— when the ignition key of your car has been turned to the OFF position for more than eight seconds.

14 **⊖ ⊕ (bass/treble/balance/fader/volume control) buttons**
These buttons normally function as the volume control. To adjust other modes, press the ⊖ or ⊕ button within three seconds after selecting the desired mode with the SEL button. The control mode automatically goes back to the volume control mode in three seconds.

15 **OFF (power off) button**
Press to turn off the radio.

This section is extracted from instruction manual.



	During tape playback	During radio reception
16	DD (Dolby NR) button (XR-5600 only) Press to activate the Dolby B NR (Noise Reduction) System. When you listen to tapes which were recorded in the Dolby B NR system, be sure to use the Dolby B NR system during playback as well.	Preset number buttons ⑰ ⑱
17	MTL (metal/CrO_2) button (XR-5600 only) Press to get the "MTL" indication in the display window. To listen to normal (TYPE I) tapes, press the button again.	
18	AMS (Automatic Music Sensor) button ⑫ (XR-5600 only)	
19	ATA (Automatic Tuner Activation) button Press to activate the ATA function. If you press either ◀◀ or ▶▶ button during the tape playback, the radio will come on automatically. When the tape playback starts, the radio will be turned off automatically. To cancel the mode, press the button again.	
20	—	
21	—	
22	—	BTM (Best Tuning Memory) button ⑮
23	—	M.SCAN (memory scan) button ⑰ Press to scan the memorized stations.

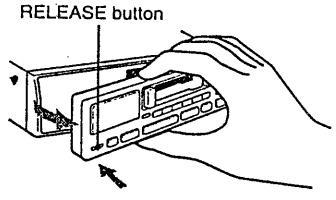
Muting a beep sound

Press the 6 button while pressing the SEL button. To obtain the beep sound again, press these buttons again.

Detaching and Attaching the Front Panel

Detaching the Front Panel

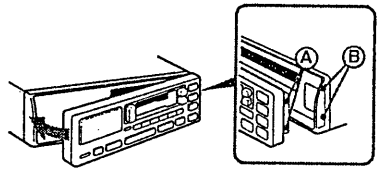
Before detaching the front panel, be sure to press the OFF button first. Then press the RELEASE button to open up the front panel, and detach the panel by pulling it towards you as illustrated.



Do not drop the panel when detaching it from the unit.

Attaching the Front Panel

Apply the right hand side of the front panel to the unit by attaching part Ⓐ of the front panel to part Ⓑ of the unit as illustrated and push until it clicks.

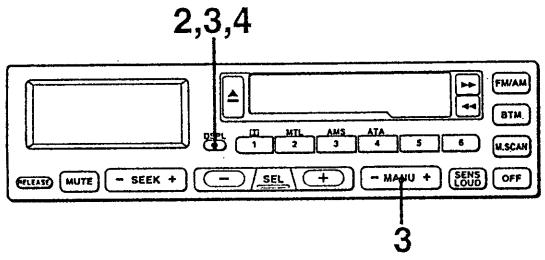


Do not press hard or apply excessive pressure to the display window of the front panel.

Notes

- Make sure that the front panel is the right way up when attaching it to the unit. It cannot be attached upside down.
- When attaching the front panel, do not press it hard against the unit. It can be easily attached by pressing lightly.
- Never leave the detached front panel in your car if it is parked in direct sunlight. There could be a considerable rise in temperature inside the car.
- When you carry the front panel with you, put it in the supplied front panel case.
- The display window may become warm while the unit is operated. This is not a sign of a malfunction.

Setting the Clock



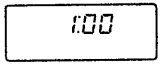
The clock has a 12-hour digital indication.

For example, set it to 10:08.

1 Turn the ignition key to the ON position.

2 Press the DSPL button if the clock indication does not come on.

DSPL



3 Press the DSPL button for more than two seconds.

DSPL

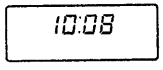
While holding down the DSPL button,

press – MANU + to set the time.

–: To advance the hour digits
+: To advance the minute digits

To advance the digits rapidly, keep the button pressed.

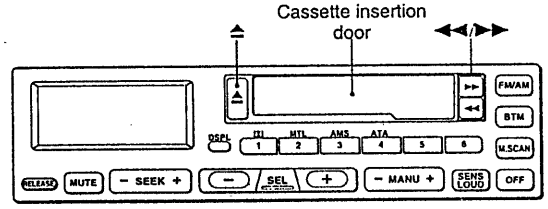
4 The clock starts when you take your finger off the DSPL button.



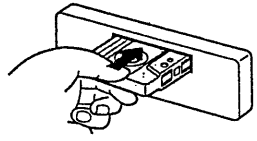
Note
If the POWER SELECT switch of the unit is set to the OFF position, the clock cannot be set unless the power is turned on. Set the clock after you turned on the radio, or tape playback.

When setting the time digits
- Minute and hour digits do not go backward.
- "00" comes after "59". The hour digits do not change then.

Listening to the Tape Playback



Insert a cassette to start playback.
Playback starts automatically.



To listen to the reverse side of the cassette,

press ►► and ◄◄ simultaneously.

To Eject the Cassette and Listen to the Radio

Press the ⏏ button.

To Wind the Tape Rapidly

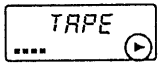
Direction indicator*	To advance	To rewind
►	press ►►.	press ◄◄.
◁	press ◄◄.	press ►►.

To resume playback, press ►► or ◄◄ lightly so as not to depress it.

Getting the clock indication during a tape playback
Press the DSPL button.
Press it again to return to the previous indication.

Note
Before turning off the unit; eject the tape to avoid tape damage.

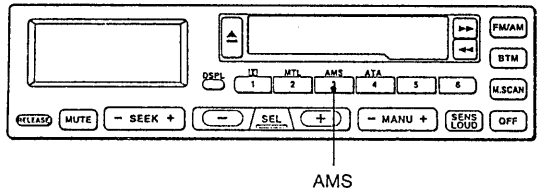
Tape transport direction indication.



The side facing up is being played.

The side facing down is being played.

* "◁►" indicator will flash while fast-winding the tape.



The AMS (Automatic Music Sensor) enables you to locate the beginnings of the next track or the previous track.

Locating a Desired Track –AMS Function

(XR-5600 only)

Press the AMS 3 button, then depress the ⏭ or ⏮ button to refer to the following table.

Indicator	Cassette side being played	Desired Track	
		Next track	Currunt track
▶	Side facing upwards	Press ⏭	Press ⏮
◁	Side facing downwards	Press ⏮	Press ⏭

The AMS may not function properly, and the track beginnings may not be located when:

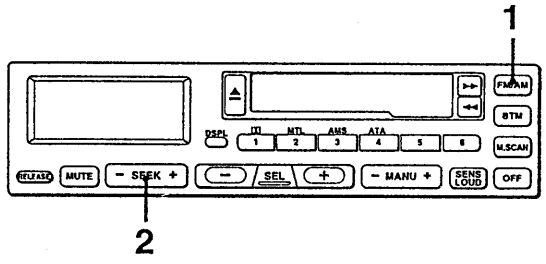
— tapes with noise between the tracks are used.
— tapes with less than four seconds of blank spaces between the tracks are used.
— you press the ⏭ or ⏮ button immediately before or after the track you want to locate.

The unit may consider the following as the blank spaces between tracks, and start playback:

— Long silent music sections on a track
— Quiet sections or a continuous low volume sound on a track
— Tracks which contain a gradual increase and decrease of the sound volume

Searching for the Stations Automatically

— Automatic Tuning



If you do not know the frequency of the station you wish to tune in, use the Automatic Tuning function.

1 Select the desired band from FMI, FMII, FMIII, AMI or AMII.

FM/AM

The tuner turns on at the same time.

2 Press the SEEK button.

- SEEK +

For lower frequencies

- SEEK +

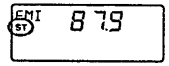
For higher frequencies

The scanning stops when a station is received. Press the button repeatedly until the desired station is received.

Note

FM has three bands (FMI, FMII and FMIII). Three bands cover the same frequency range. To change the band, press FM/AM.

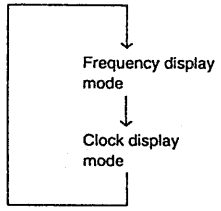
While receiving FM broadcasting



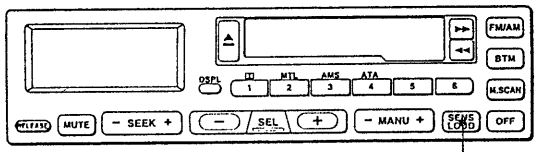
The "ST" indication will appear when an FM stereo program with sufficient signal strength is tuned in. The program will be received in stereo.

Getting the clock indication while listening to the radio

Press the DSPL button. Each time you press the button, the display mode changes as follows:



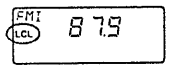
Searching for the Stations Automatically



SENS

Avoiding the Automatic Tuning from Stopping on Stations Too Frequently
—Local Seek Mode

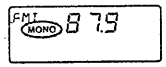
Press the [SENS LOUD] button lightly to get the "LCL" indication.



The mode changes to the local seek mode where only the stations with relatively strong signals are tuned in. It functions only when the Automatic Tuning is in operation.

If FM Stereo Broadcasting is Difficult to Receive —Monaural Mode

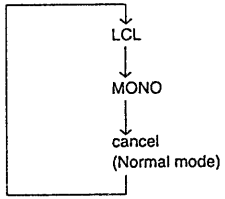
Press the [SENS LOUD] button lightly to get the "MONO" indication.



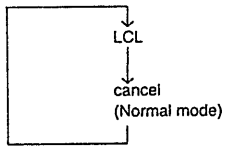
The sound improves, but it will become monaural.

Each time you press the SENS button, the mode changes as follows:

While receiving FM broadcasting

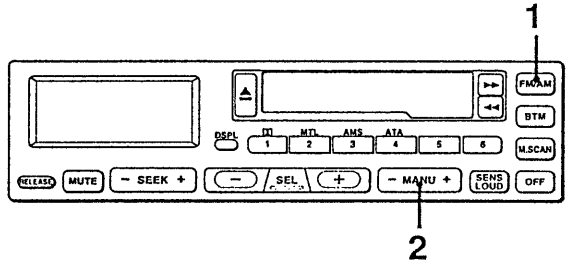


While receiving AM broadcasting



Note
The SENS button also functions as the LOUD button if you keep it pressed for more than two seconds.

Tuning in by Adjusting the Frequency
— Manual Tuning



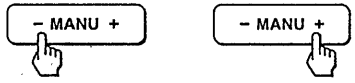
Use the Manual Tuning function if you know the frequency of the desired station.

1 **Select the desired band from FMI, FMII, FMIII, AMI or AMII.**

FM/AM

The tuner turns on at the same time.

2 **Press the MANU button to select the desired station.**



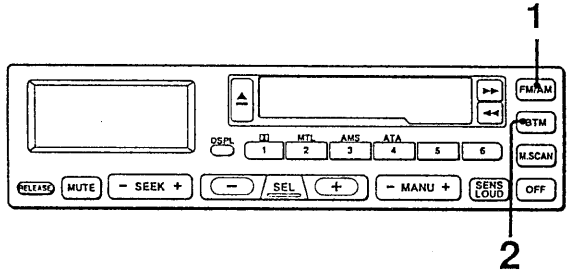
For lower frequencies For higher frequencies

To change the frequency rapidly, keep the button pressed.

PREVENTING ACCIDENTS!
During driving, use the Automatic Tuning and the BTM function instead of the Manual Tuning.

Memorizing the Stations Automatically

— BTM (Best Tuning Memory) Function



Stations with clearest reception are automatically searched and memorized on each band (FMI, FMII, FMIII and AMI, AMII). Up to 6 stations on each band can be stored on the preset number buttons 1 to 6 in the order of frequency.

1 **Select the desired band from FMI, FMII, FMIII, AMI or AMII.**

FM/AM

The tuner turns on at the same time.

2 **Press the BTM button to activate BTM (Best Tuning Memory) function.**

BTM

The receivable frequencies of FMI, FMII and FMIII are the same. Therefore, 18 stations can be memorized on FM.

The BTM function

The BTM function searches all the receivable stations within the currently selected band and memorizes the ones in good receiving conditions in sequence from the lowest frequency.

How to memorize the stations on the preset number buttons

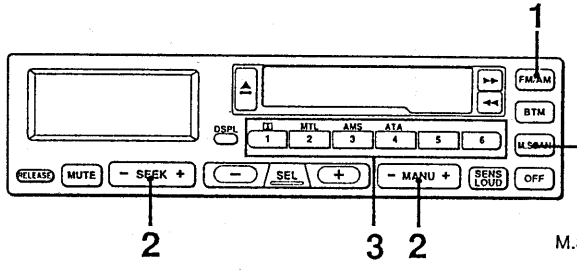
— When there is no preset number indicated on the display window: all the preset number buttons set in the currently selected band will be filled with the memories.

— When there is a preset number indicated on the display window: the unit will memorize the stations on the preset number buttons from the one currently being displayed. For example, when you choose FMI and preset number 3 is being displayed, the operation will start from the preset number 3 on FMI and stops at the preset number 6 on FMIII.

Note

There may be cases where there are not enough receivable stations due to the lack of stations in the vicinity or weak broadcasting signals. In such cases, the BTM operation may stop without all the buttons being occupied with memories.

Memorizing Only the Desired Stations



Up to 6 stations on each band (FMI, FMII, FMIII and AMI, AMII) can be stored in the memory in order of your choice.

For example, store a station on the preset number button 1.

1 **Select the desired band from FMI, FMII, FMIII, AMI or AMII.**

FM/AM

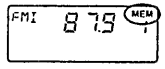
The tuner turns on at the same time.

2 **Tune in the station which you wish to store on the preset number button (page 13 or 15).**

– SEEK + or – MANU +

3 **Keep the preset number button pressed for about two seconds until the "MEM" indication comes on in the display window.**

1



Repeat the same procedure to store other stations.

Only one station per band (FMI, FMII, FMIII and AMI, AMII) can be stored in the memory on each preset number button.
If you try to store another station on the same preset number button, the previously stored station will be erased.

When the "MEM" indication comes on, the station is stored in the memory and the operation is completed. The "MEM" indication goes off after a while.

Checking in Order, All the Stations Stored in the Memory — *Memory Scan Function*

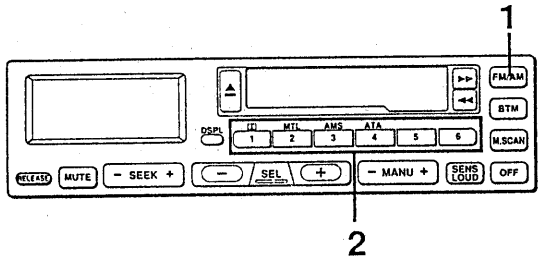
Press the M.SCAN button lightly.
The tuner will receive in order, all the stations stored in the memory for five seconds each.

To cancel
Press the M.SCAN button lightly once more. The memory scan will be canceled and you will be able to listen to the station currently being received.

Note

There may be cases in which even the stations stored in the memory cannot be received due to weak signals in the vicinity of your car.

Receiving Stations Stored in the Memory



Select the desired band from FMI, FMII, FMIII, AMI or AMII.

FM/AM

The tuner turns on at the same time.

2 Press lightly the preset number button on which the desired station is to be stored.

1 — 6

Notes

- If the signals in the vicinity of your car are too weak, even stations stored in the memory cannot be received.
- If you press the preset number button for more than two seconds, the currently received station will be memorized. To receive the previously memorized station, press the preset number button only lightly.

Maintenance

Fuse Replacement

If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In this case, consult your nearest Sony dealer.

Warning

Use only a fuse with the specified amperage. Use of a higher amperage fuse may cause serious damage.

Cleaning the Head and the Tape Path

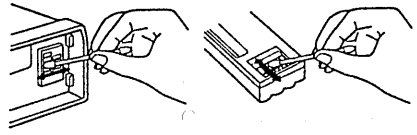
Prolonged use may contaminate the tape head and the tape path. Contamination causes sound drop-outs during playback.

Clean the tape head and the tape path every two weeks to enjoy optimum hi-fi stereo sound. Use a commercially available cleaning cassette.

Cleaning the Connectors

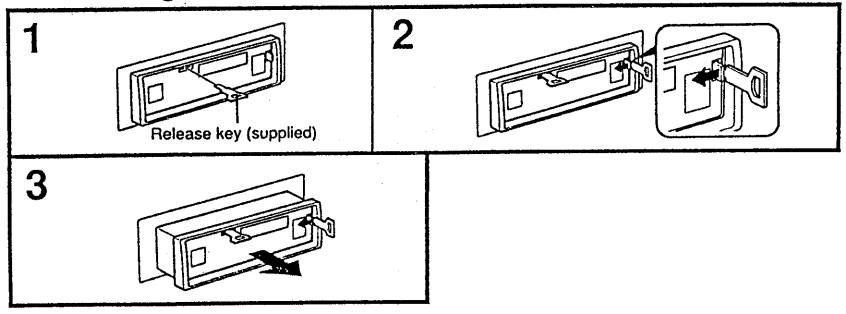
The unit may not function properly if the connectors between the unit and the front panel get contaminated. In order to prevent this, open up the front panel by pressing the RELEASE button, detach it and clean the connectors from time to time.

Clean the connectors with a cotton swab as illustrated. Be sure to clean them in the direction of the arrow.

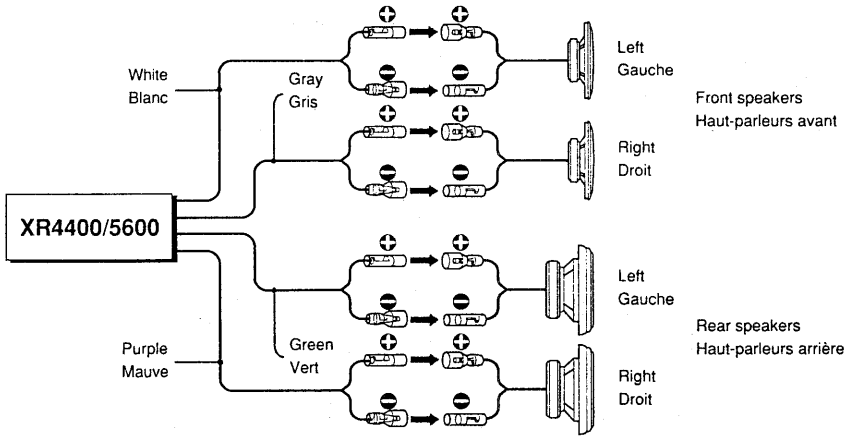


Main unit Back of the front panel

Dismounting the unit



Speaker Connections/Connexion des haut-parleurs



Notes on speaker connection

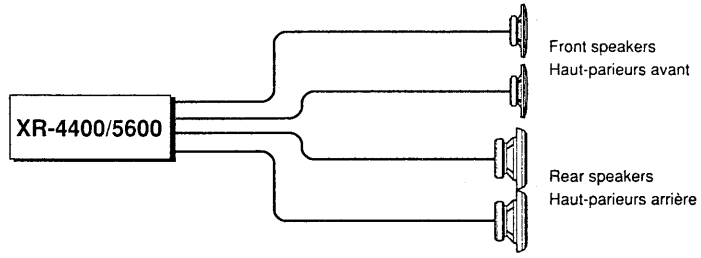
- Use speakers with an impedance of 3.2 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
- Do not connect the speakers in parallel.
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.

Remarques sur la connexion des haut-parleurs

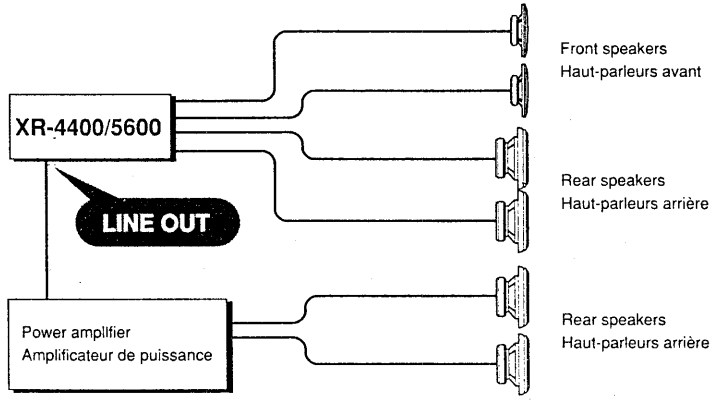
- Utiliser des haut-parleurs avec une impédance de 3,2 à 8 ohms et qui peuvent supporter l'alimentation fournie sinon ils risqueraient d'être endommagés.
- Ne pas connecter, les bornes du système de haut-parleur au châssis de la voiture et ne pas raccorder les bornes du haut-parleur droit aux bornes du haut-parleur gauche.
- Ne pas essayer de connecter les haut-parleurs en parallèle.
- Ne pas connector d'enceintes acoustiques actives (avec amplificateurs intégrés) aux bornes: d'enceinte de cet appareil, pour éviter d'endommager les enceintes. Veiller à raccorder des enceintes passives.

Connection Diagram/Schéma de connexions

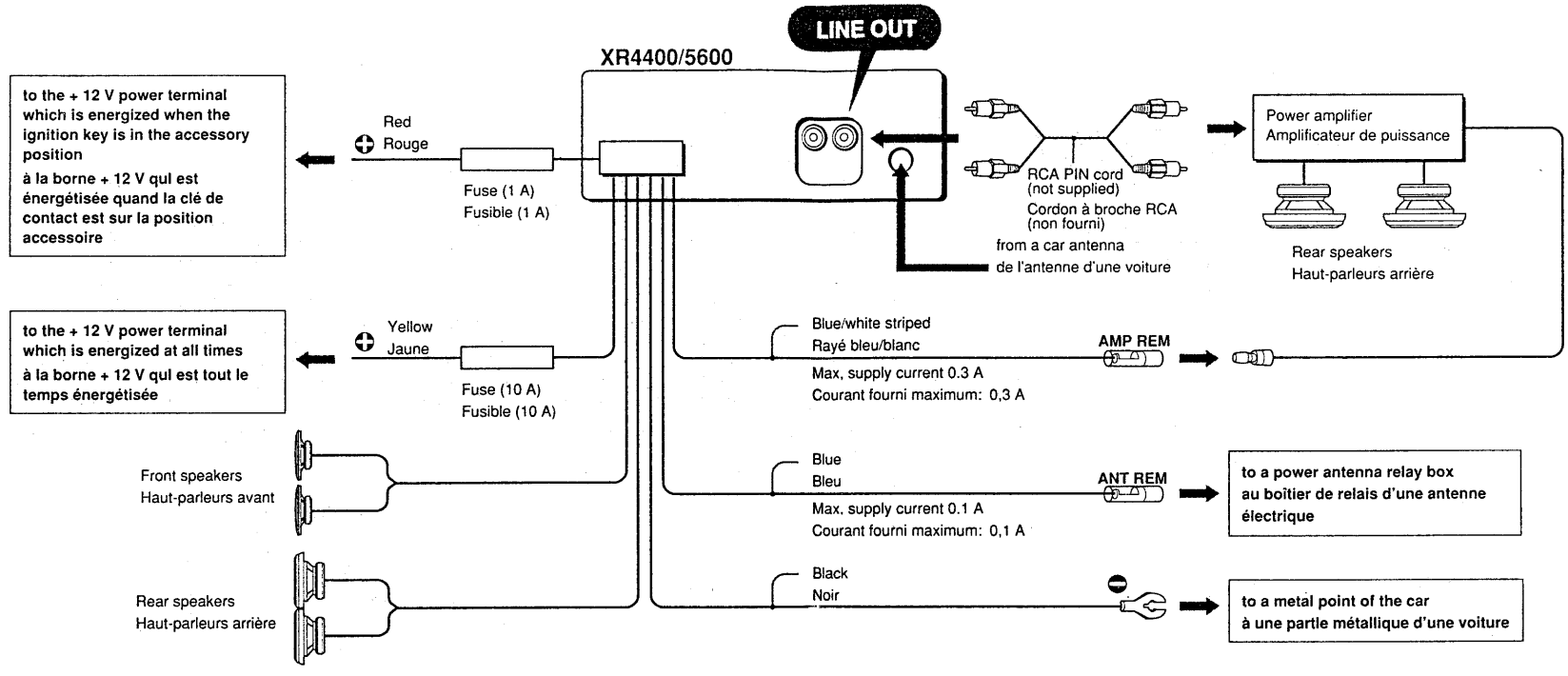
Example 1
Exemple 1



Example 2
Exemple 2



Connections of Example 2/Connexions de l'exemple 2


LINE OUT
XR4400/5600
to the + 12 V power terminal which is energized when the ignition key is in the accessory position
à la borne + 12 V qui est énergétisée quand la clé de contact est sur la position accessoire
Red
Rouge
Fuse (1 A)
Fusible (1 A)
RCA PIN cord (not supplied)
Cordon à broche RCA (non fourni)
from a car antenna
de l'antenne d'une voiture
Power amplifier
Amplificateur de puissance
Rear speakers
Haut-parleurs arrière
to the + 12 V power terminal which is energized at all times
à la borne + 12 V qui est tout le temps énergétisée
Yellow
Jaune
Fuse (10 A)
Fusible (10 A)
Blue/white striped
Rayé bleu/blanc
AMP REM
Max. supply current 0.3 A
Courant fourni maximum: 0,3 A
Front speakers
Haut-parleurs avant
Blue
Bleu
ANT REM
Max. supply current 0.1 A
Courant fourni maximum: 0,1 A
to a power antenna relay box
au boîtier de relais d'une antenne électrique
Rear speakers
Haut-parleurs arrière
Black
Noir
to a metal point of the car
à une partie métallique d'une voiture

Notes on the control leads

- The power antenna control lead (blue) supplies 12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation) function.
- A power antenna without relay box cannot be used with this unit.

Remarques sur les fils de contrôle

- Le fil de contrôle de l'antenne électrique (bleu) fourni du courant continu de 12 V quand le tuner est mis sous tension ou quand la fonction ATA (Activation automatique du tuner) est activée.
- Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.

Installation

Precautions

- Choose the installation location carefully so that the unit will not hamper the driver during driving.
- Avoid installing the unit where it would be subject to high temperatures, such as from direct sunlight or hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.
- Before installing the unit, detach the front panel.

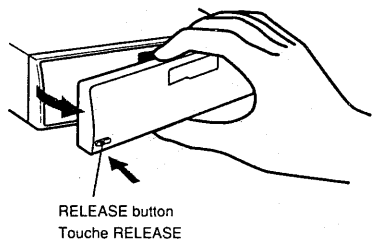
Mounting angle adjustment
Adjust the mounting angle to less than 20°.

How to Detach and Attach the Front Panel

To detach
Press the RELEASE button to open the front panel, then pull it out.

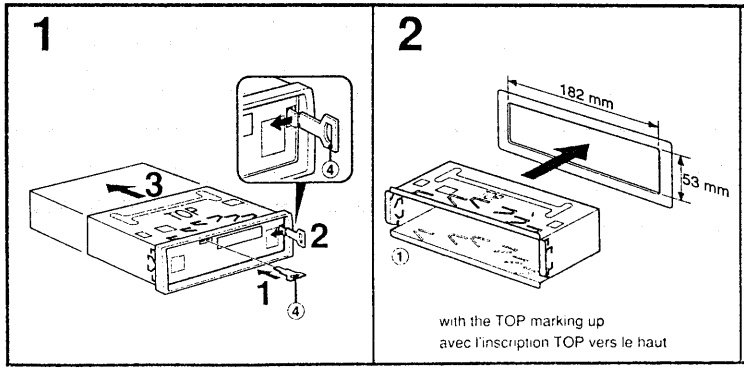
To attach
Align parts Ⓐ and Ⓑ, and push the front panel until it clicks.

To detach
Dépose



Mounting Example

Installation in the dashboard



Installation

Précautions

- Choisir soigneusement l'emplacement de l'installation, pour ne pas gêner la conduite.
- Eviter d'installer l'appareil là où il serait soumis à des températures élevées, comme en plein soleil ou à proximité d'une bouche d'air chaud, ni ou il serait soumis à de la poussière, saleté ou vibrations violentes.
- Pour garantir un montage sur, n'utiliser que le matériel fourni.
- Avant d'installer l'appareil, déposer le panneau avant.

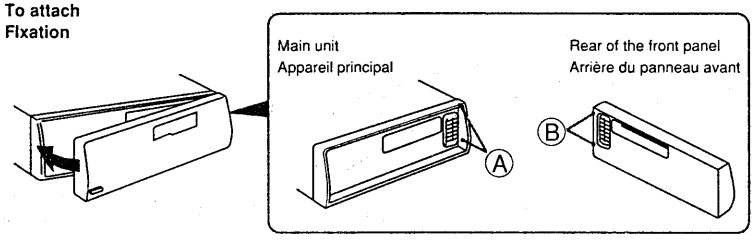
Réglage de l'angle de montage
Ajuster l'inclinaison à un angle inférieur à 20°.

Dépose et fixation du panneau avant

Dépose
Appuyer sur la touche RELEASE pour ouvrir le panneau avant, puis le retirer.

Fixation
Aligner les pièces Ⓐ et Ⓑ, puis pousser sur le panneau pour fixer.

To attach
Fixation



Exemple d'installation

Encastrement dans le tableau de bord

Mounting the Unit in a Japanese Car

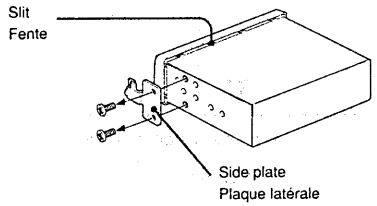
This unit may not be installed in some makes of cars. In this case, consult your nearest Sony dealer.

Installation de l'appareil dans une voiture japonaise

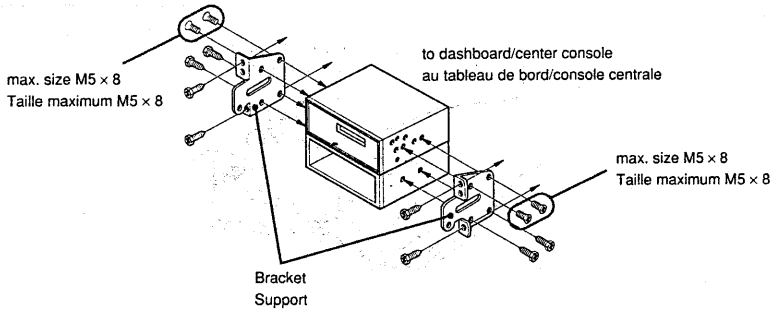
Cet appareil peut ne pas être installé dans certaines voitures. Consultez, dans ce cas, votre concessionnaire Sony.

Run a blade along the slits on the back of the front trim and cut it off the unit.
At the same time, remove the side plate as well.

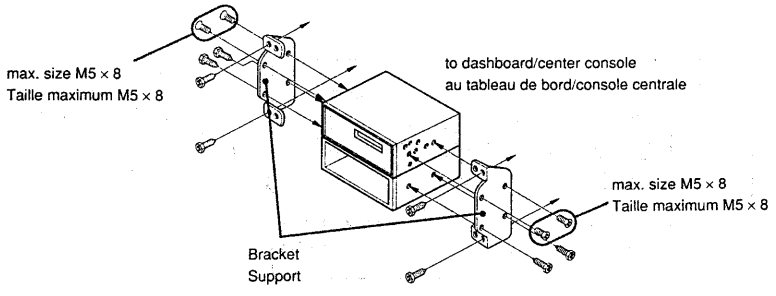
Passer une lame le long des fentes à l'arrière de la bordure avant et la couper.
Au même moment, enlever également la plaque latérale.



TOYOTA



NISSAN



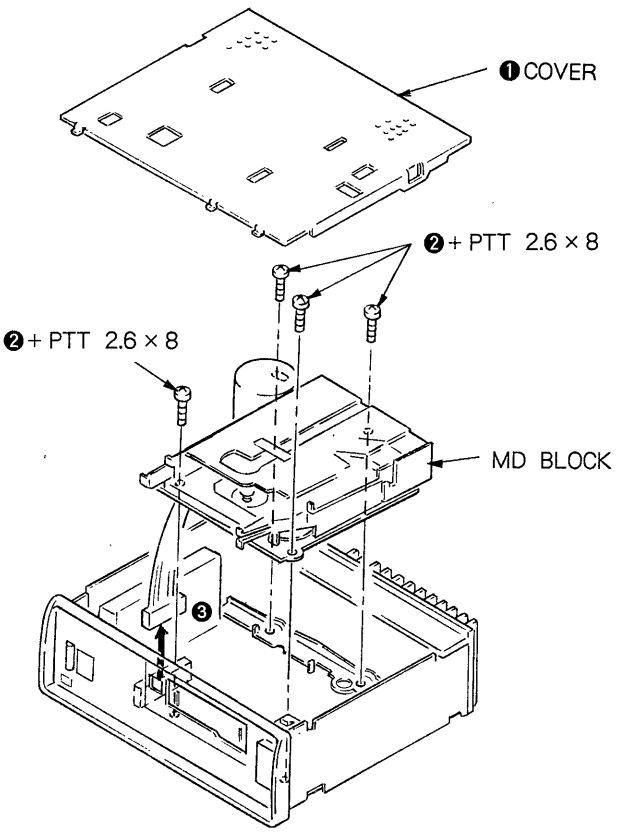
Note
Use the existing parts supplied to your car.

Remarque
Utiliser les pièces fournies avec la voiture.

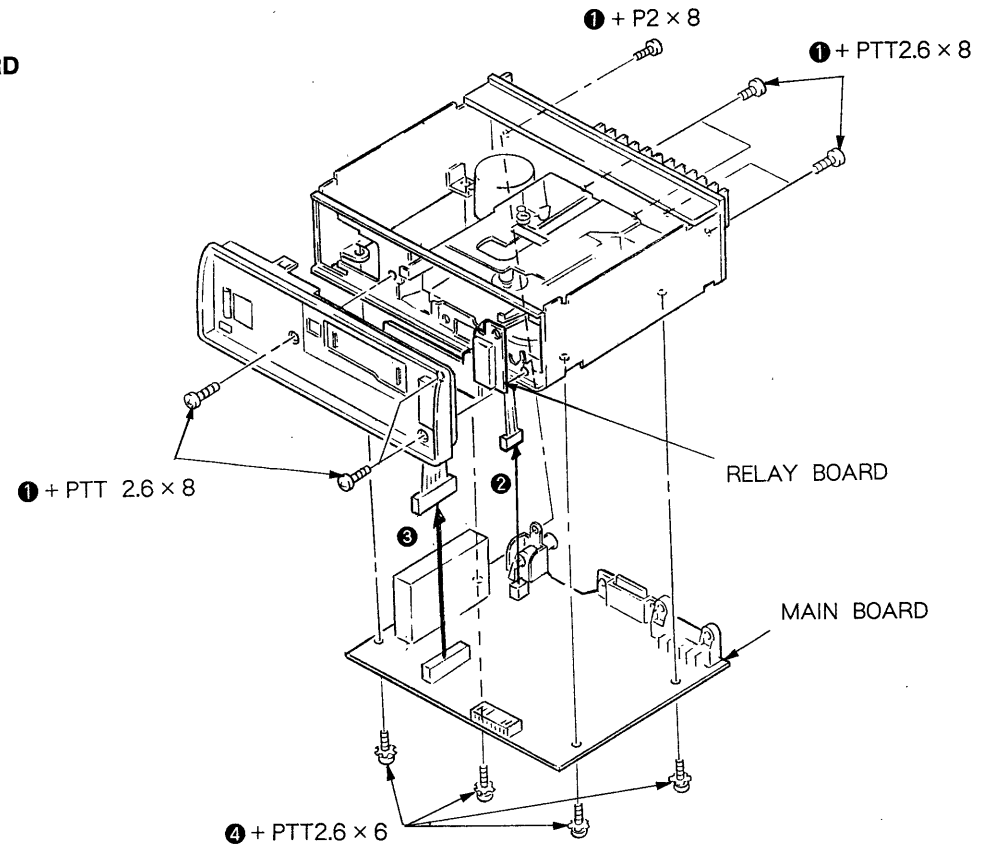
SECTION 2
DISASSEMBLY

NOTE : Follow the disassembly procedure in the numerical order given.

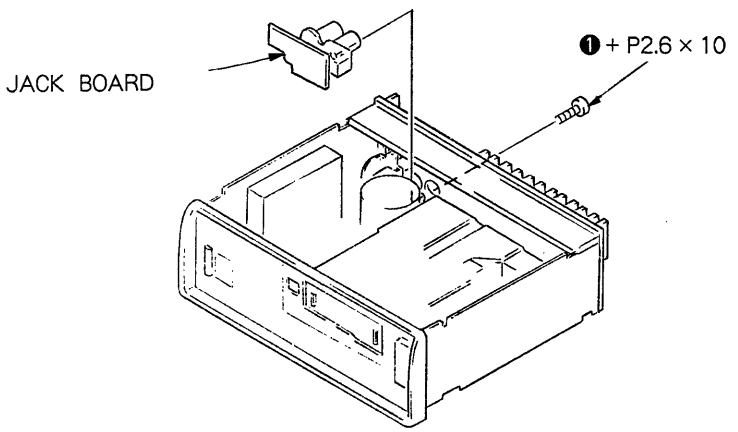
• **MD BLOCK**



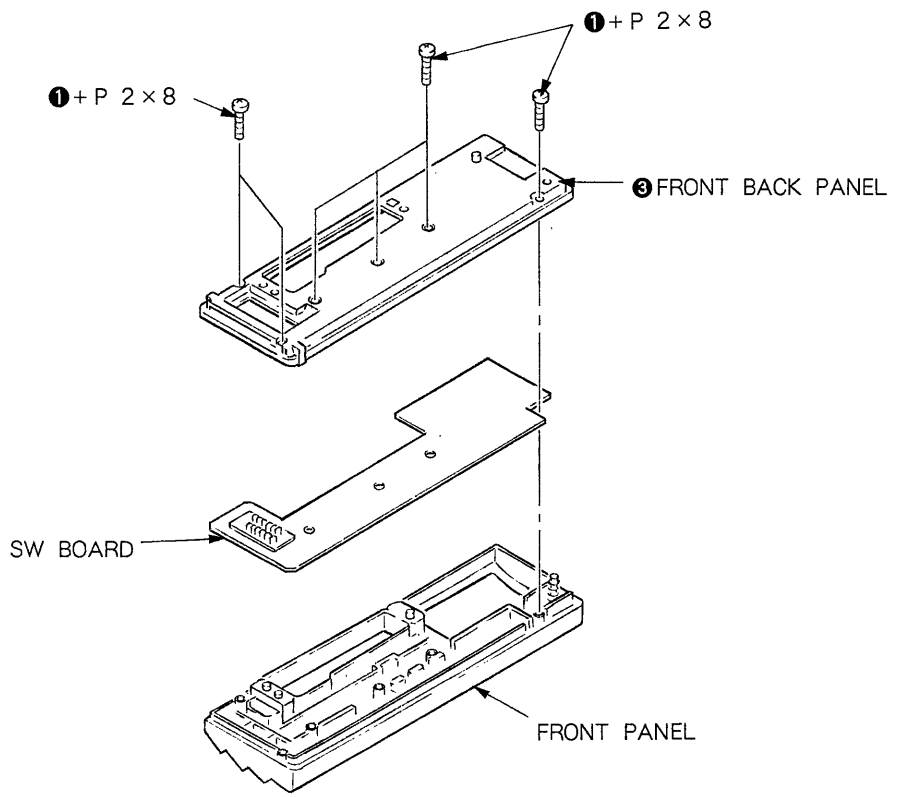
• **MAIN BOARD**



• **JACK BOARD**



• **SW BOARD**



SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured alcohol-moistened swab :

Record/playback head	Pinch roller
Erase head	Rubber belts
Capstan	Idlers

2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)

3. Do not use a magnetized screwdriver for the adjustments.

4. After the adjustments, apply suitable locking compound to the parts adjusted.

5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Measure the torque at a supply voltage of 14.4 V DC.

	Torque meter	Meter reading
FWD REW	CQ-102C / RB	25 to 55 g • cm (0.35 to 0.77 oz • inch)
FF, REW	CQ-201B	50 to 150 g • cm (0.7 to 2.1 oz • inch)
Back tension	CQ-102C / RB	1.5 to 4 g • cm or less (0.02 to 0.05 oz•inch or less)

3-2. ELECTRICAL ADJUSTMENTS

NOTE :

- Execute the adjustments and measurements on all channels unless otherwise specified.
- Setting electronic potentiometers.

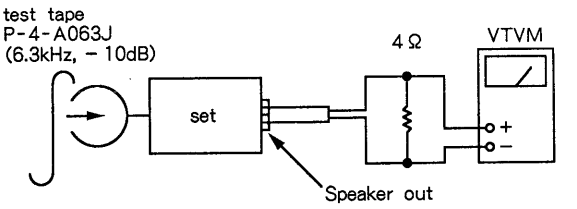
VOL (VOLUME) : mid level
BAL (BALANCED) : mechanical center
DOLBY B NR : OFF
TONE : mechanical center

DECK SECTION

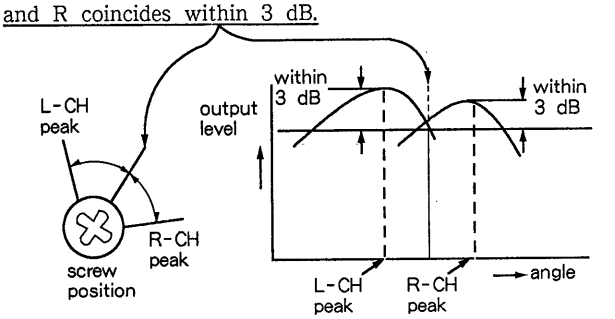
PB HEAD Vertical Adjustment

Procedure :

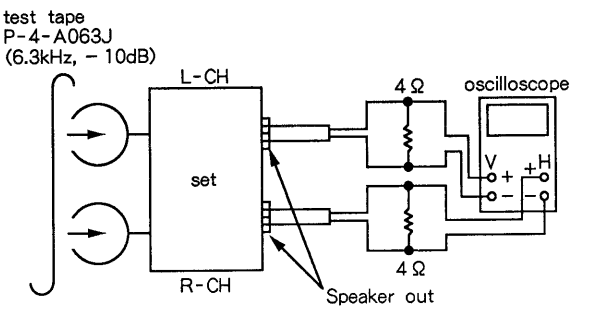
1. Put the set into the FWD PB mode.

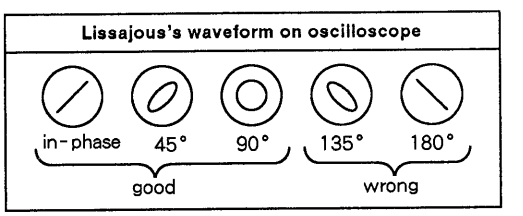


2. Turn the screw and check the output peak value. Adjust the screw so that peak value in channels L and R coincides within 3 dB.



3. Check the phase in the PB mode.



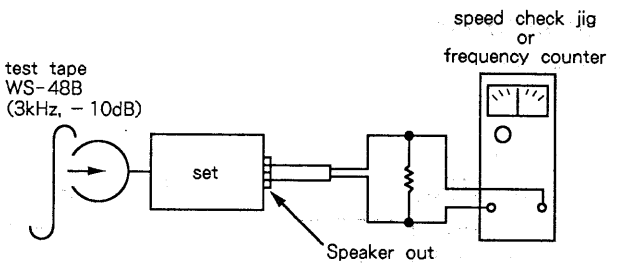


4. Repeat the above adjustment for the REV PB mode.
5. Check that output level difference between FWD PB mode and REV PB mode is within 3 dB.

Tape Speed Adjustment

Procedure :

1. Put the set into the FWD PB mode.

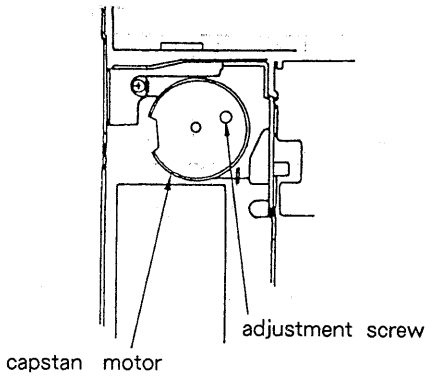


Specification :

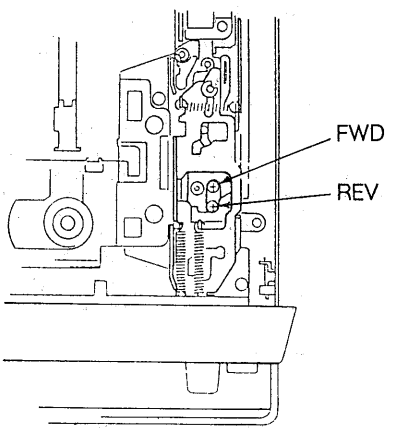
Speed checking	Frequency counter
– 1.5 to + 0.5 %	3,000 $^{+15}_{-45}$ Hz

Adjust so that the frequency difference between the FWD and REV modes is within 1.5 %.

Adjustment Location : (Tape Speed ADJ)



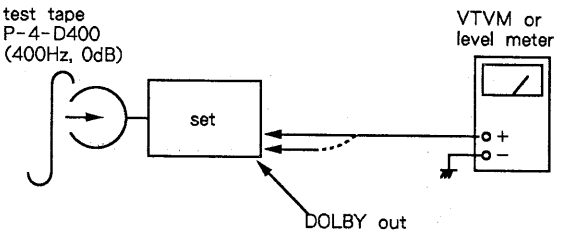
Adjustment Location : (PB Head Veatical ADJ)



DOLBY NR Adjustment

Setting :

DOLBY NR switch : OFF

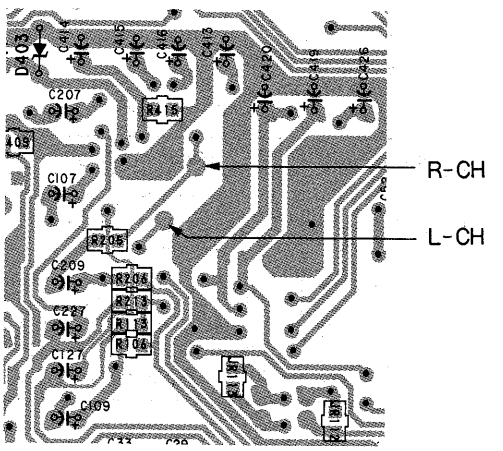


Procedure :

1. Put the set into the FWD PB mode.
2. Adjust RV101 (L-CH) so that VTVM reading is – 6 ± 1.5 dB.
3. Put the set into the REV PB mode.
4. Adjust RV201 (R-CH) so that VTVM reading is – 6 ± 1.5 dB. (– 6 ± 1.5 dB : approx.0.35 to 0.54 V)

Adjustment Location : Main board

[MAIN BOARD] (Conductor Side)



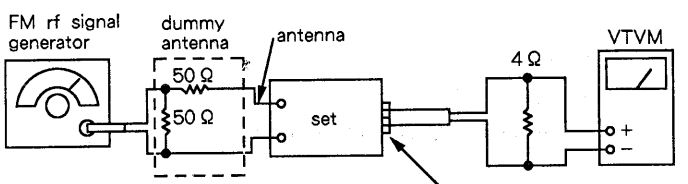
· See Page 21 for adjustment location.

FM SECTION

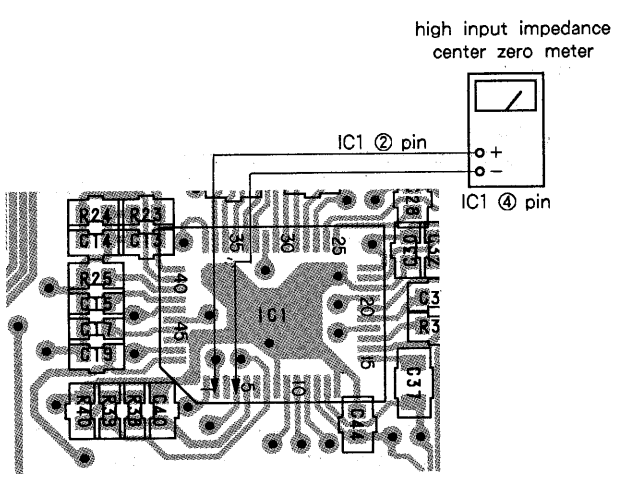
FM f center Adjustment ( ) :US, CND model

Setting :

BAND : FM MONO

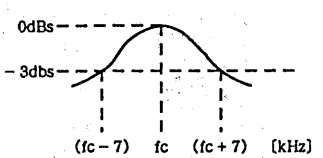


Carrier frequency : 98.0MHz (97.5MHz)
Output level : 60dB (1mV)
Modulation : 1kHz, 75kHz deviation (100%)



Procedure :

1. Slowly adjust the core of T1 to obtain a ± 20mV reading on high impedance center zero meter.
2. Output an f center 60dB signal output from FM SG so that SP out terminal is 0dB.
3. Change the FM SG frequency and check the deviation of the frequency when the SP out terminal drops 3dB.



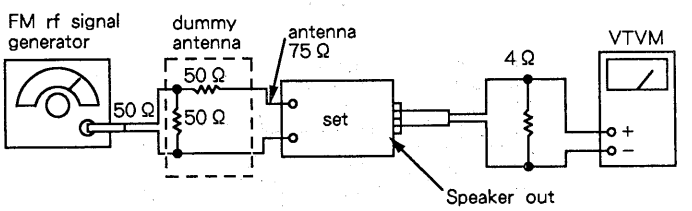
4. Readjust T1 when the deviation of the ferquency does not satisfy the standard.

Adjustment Location : Main board (See page 21)

FM Stereo Separation Adjustment ( ) :US, CND model

Setting :

Band : FM Stereo
Frequency : 98.0MHz (97.5MHz)



Carrier frequency : 98.0MHz (97.5MHz)
Output level : 70dB (3.15mV)
Modulation : 1kHz
Main : 33.75kHz deviation
Sub : 33.75kHz deviation
19kHz pilot : 7.5kHz deviation

Procedure :

1. Set the output level of a signal generator to 70dB and the adjust then output to 0dB with the volume control.
2. Adjust RV2 for a best stereo separation.

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV2 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV2 for minimum reading.

L-CH stereo separation : Ⓐ-Ⓑ
R-CH stereo separation : Ⓒ-Ⓓ
The separation of both channels should be equal.

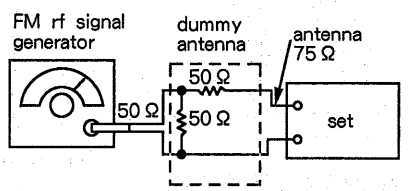
3. Adjust so that separation is maximized. (separation > 25dB)

Adjustment Location : Main board (See page 21)

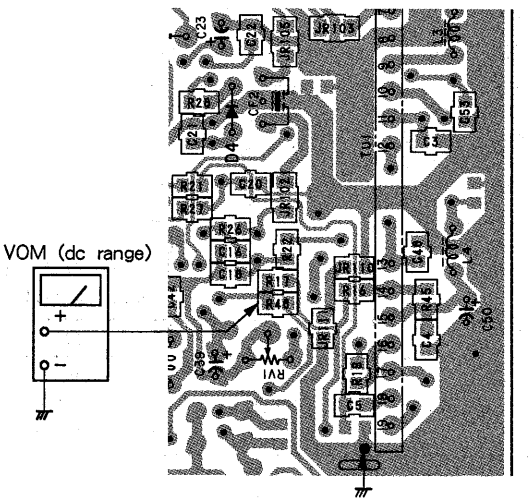
FM Auto-scan Stop Level Adjustment ( ) : US, CND model

Setting :

Band switch : FM MONO
Frequency : 98.0MHz (97.5MHz)



Carrier frequency : 98.0MHz (97.5MHz)
Output level : 25dB (18 μ V)
Modulation : 1kHz, 75kHz deviation (100 %)



Procedure :

1. Adjust VR1 at the point where the VOM reading changes from low to high. (around 0.6V)
2. Confirm that the set stops auto-scanning with FM RF SSG output level set at 25 ± 2dB.

Adjustment Location : Main board (See page 21)

AM SECTION

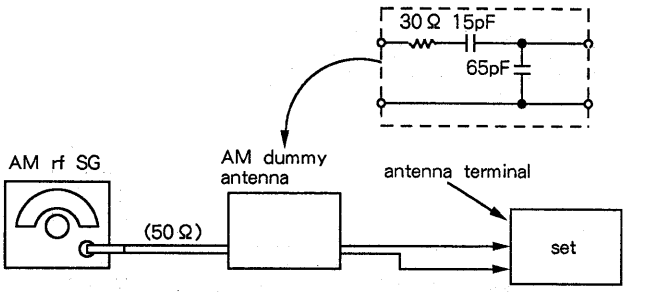
AM Auto-scan Stop Level Adjustment ( ) : US, CND model

Note :

Be sure to perform this adjustment after "FM Auto-scan Stop Adjustment".

Setting :

BAND : MW
Frequency : 999kHz (1,000kHz)



Carrier frequency : 999kHz (1,000kHz)
Output level : 30dB
Modulation : no modulation

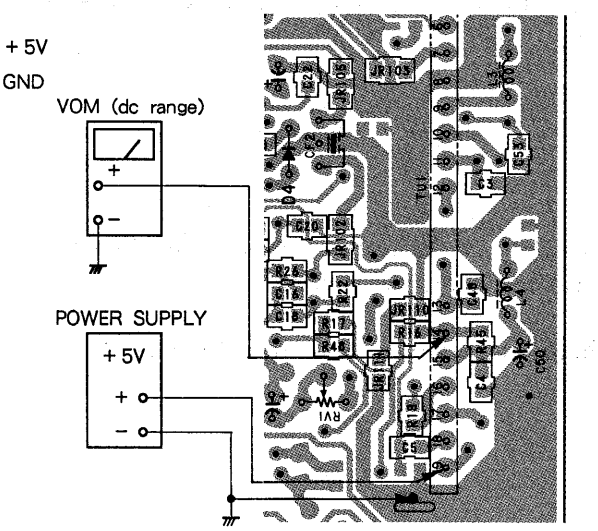
Procedure :

1. Adjust TU1 (VR) at the point where the VOM reading changes from low to high. (around 0.6V)
2. Confirm that the set stops auto-scanning with AM RF SG output level set at 30 ± 2dB.

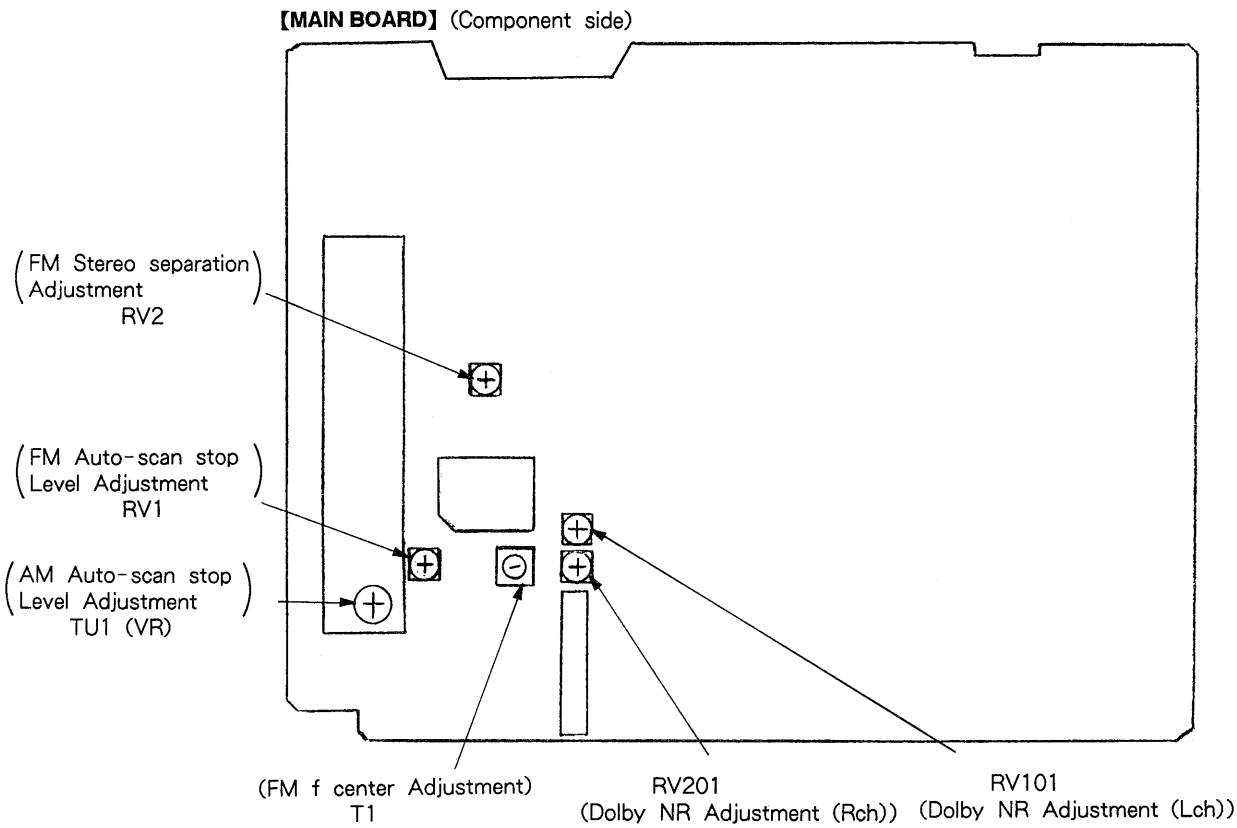
Note :

AM mute signal OFF. (Add 5V to ⑲pin of TU1)

Adjustment Location : Main board (TU1) (See page 21)

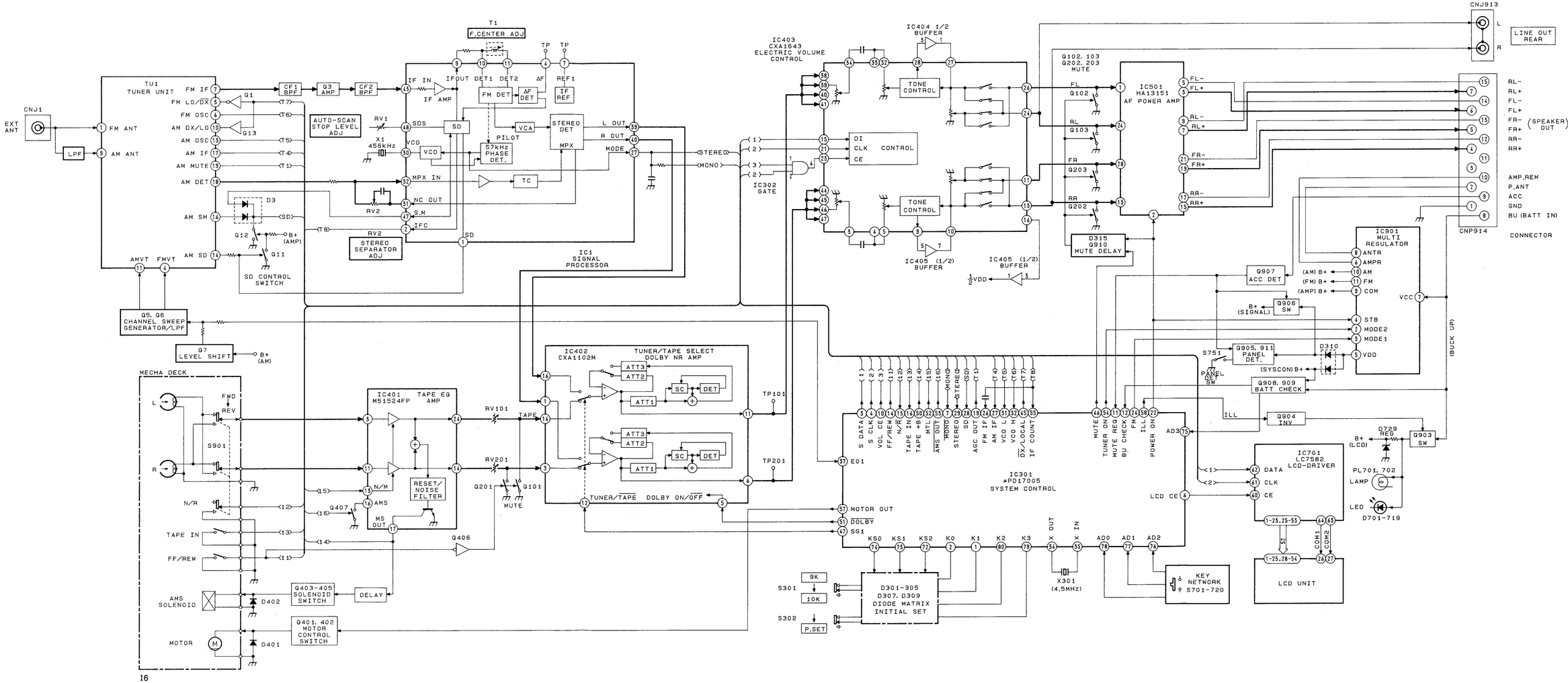


ADJUSTMENT LOCATION

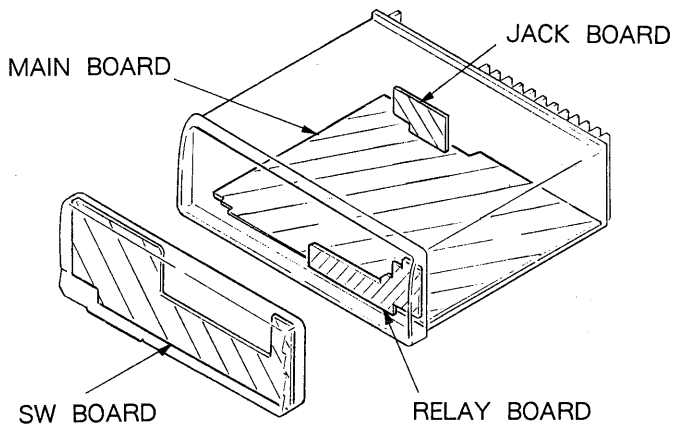

[MAIN BOARD] (Component side)
(FM Stereo separation Adjustment RV2)
(FM Auto-scan stop Level Adjustment RV1)
(AM Auto-scan stop Level Adjustment TU1 (VR))
(FM f center Adjustment) T1
RV201 (Dolby NR Adjustment (Rch))
RV101 (Dolby NR Adjustment (Lch))

SECTION 4
DIAGRAMS

4-1. BLOCK DIAGRAM

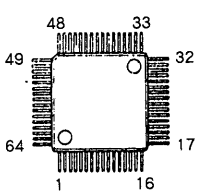


4-2. IC BLOCK DIAGRAM

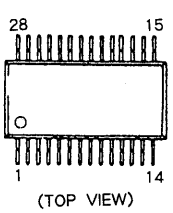


4-3. SEMICONDUCTOR LEAD LAYOUT

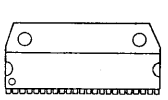
LC7582



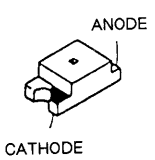
M51524FP



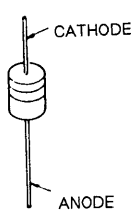
159-98



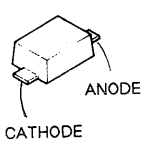
CL-170Y-CD



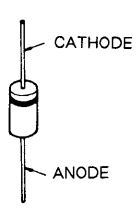
DTZ5.1B
DTZ5.6B



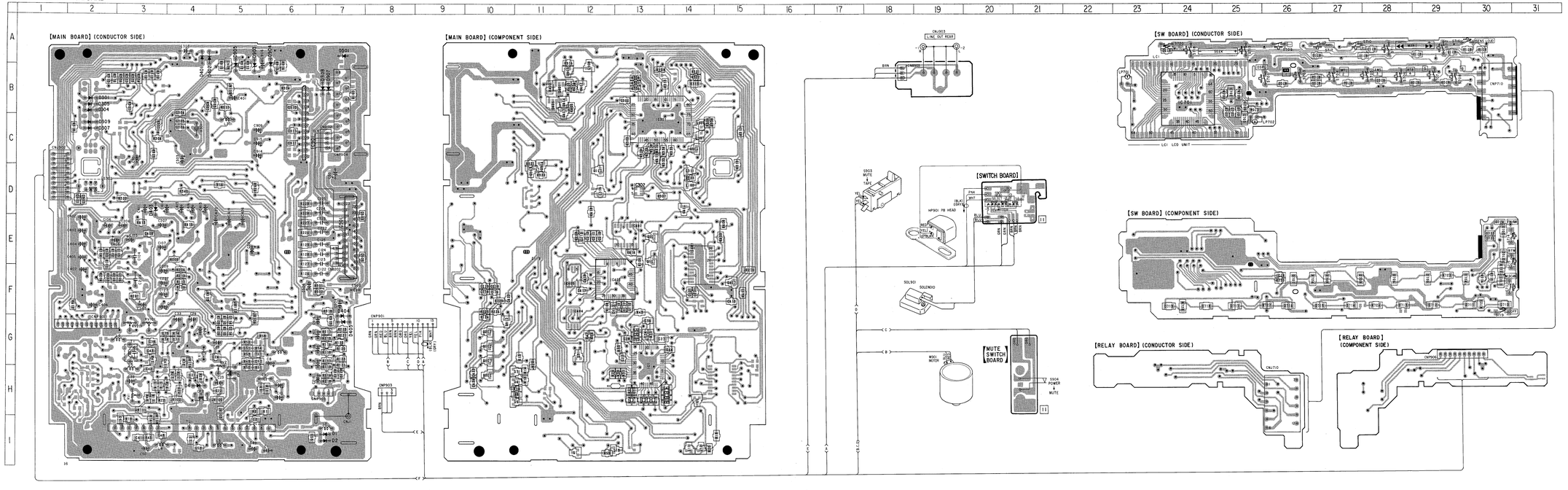
RD4.7ES
RD6.2ES
RD7.5ES
1SS119
11ES2



1S2472



4-4. PRINTED WIRING BOARD



- Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D1	I-7	D714	F-27	Q3	G-12
D2	I-7	D715	F-27	Q4	I-13
D3	H-14	D716	F-26	Q5	H-10
D4	H-4	D717	F-25	Q6	H-10
D301	B-2	D718	F-24	Q7	H-10
D304	B-2	D719	F-24	Q11	I-14
D305	B-2	D722	C-25	Q12	I-14
D307	C-2	D723	E-30	Q13	I-12
D309	C-2	D724	E-30	Q101	E-13
D310	D-12	D725	E-30	Q102	G-10
D315	D-12	D903	A-5	Q103	G-10
D401	B-4	D904	A-6	Q201	E-13
D402	B-4	D905	A-5	Q202	H-10
D403	G-3	D907	B-7	Q203	G-10
D404	F-7	D908	B-7	Q401	B-11
D405	G-7	D913	D-14	Q402	B-12
D501	A-7			Q403	B-11
D701	F-30	IC1	H-13	Q404	B-11
D702	E-30	IC301	C-13	Q405	B-11
D703	E-30	IC302	D-13	Q406	D-14
D704	F-30	IC401	E-14	Q407	F-15
D705	F-29	IC402	E-13	Q903	D-11
D706	F-28	IC403	F-12	Q904	D-11
D707	F-26	IC404	F-12	Q905	C-14
D708	F-27	IC405	F-12	Q906	C-14
D709	F-27	IC501	E-7	Q907	C-14
D710	F-30	IC701	B-24	Q908	B-12
D711	F-30	IC901	C-6	Q909	B-12
D712	F-29			Q910	G-10
D713	F-28	Q1	I-12	Q911	D-14

Note on Schematic Diagram :

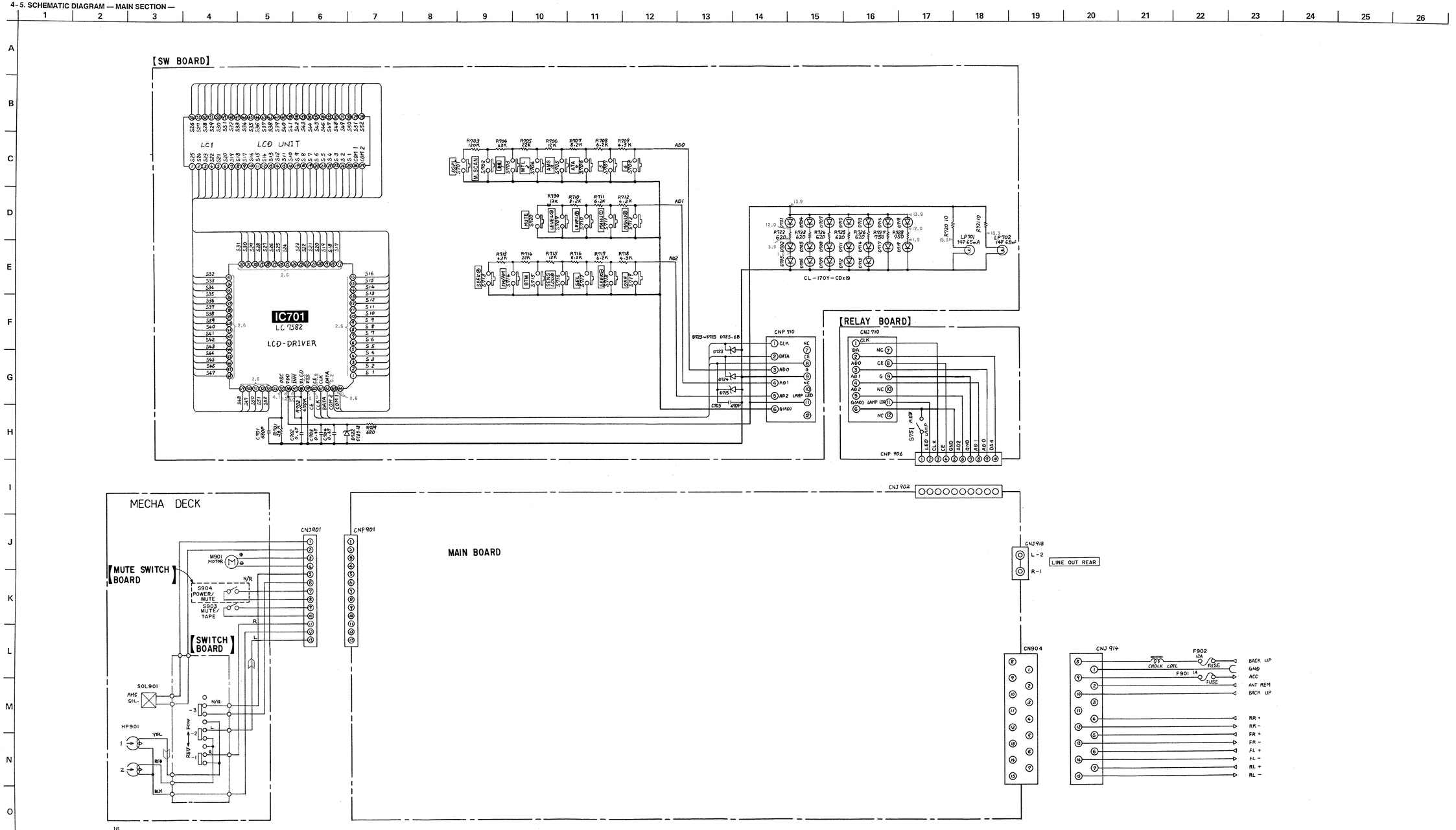
- **All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.**
- **All resistors are in Ω and ¼ W or less unless otherwise specified.**
- : adjustment for repair.
- : B + Line.
- Power voltage is dc V and fed with regulated dc power supply from external power voltage jack.
  no mark : STOP
  ( ) :
- Voltages are taken with a VOM (input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  : FM
  : LW
  : PHONO

Note on Mounting Diagram :

- : Parts extracted from the component side.
- : Through hole.
- : Pattern on the side which is seen.

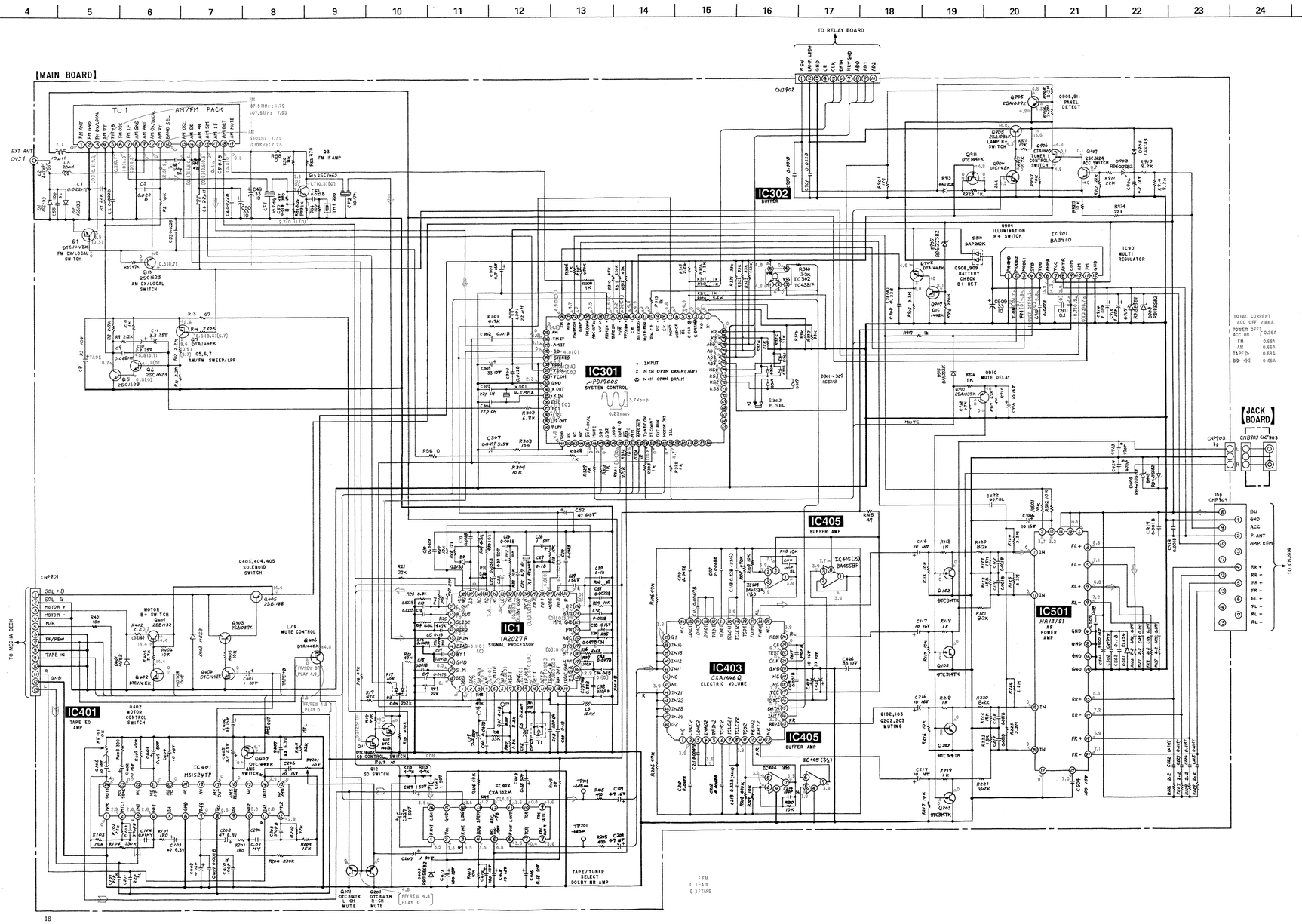
(Other pattern is not shown.)

4-5. SCHEMATIC DIAGRAM — MAIN SECTION —



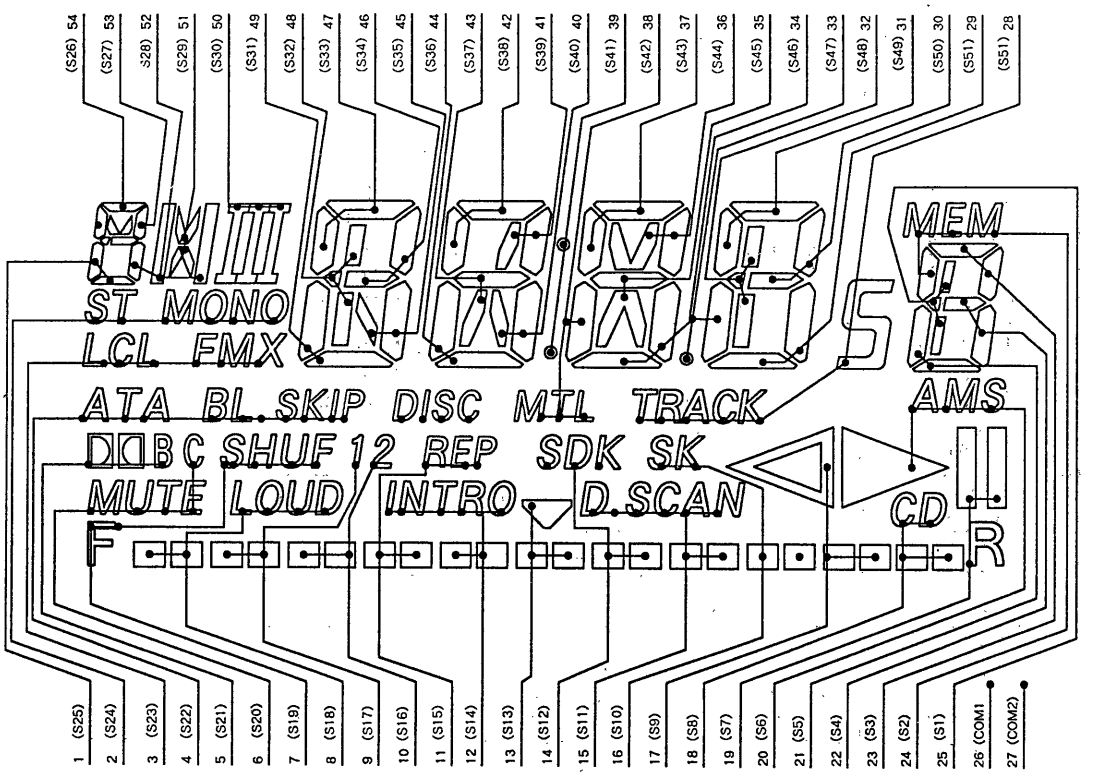
16

4-6. SCHEMATIC DIAGRAM — SW SECTION —

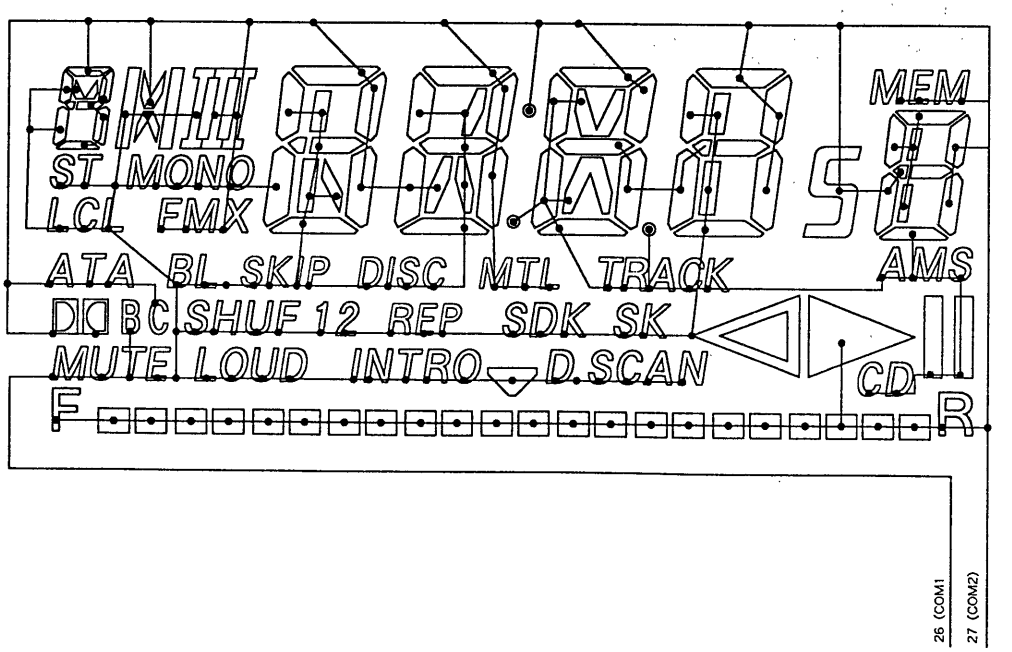

[MAIN BOARD]
TO RELAY BOARD
CN1902
IC302
BUFFER
IC301
μPD17005
SYSTEM CONTROL
IC1
TA2027F
SIGNAL PROCESSOR
IC401
TAPE EQ AMP
IC403
CXA1064Q
ELECTRIC VOLUME
IC405
BUFFER AMP
IC501
HA13151
AF POWER AMP
IC901
BA3910
MULTI REGULATOR
IC402
CXA1162M
TAPE/TUNER SELECT DOLBY NR AMP
IC401
M51529FP
TU1
AM/FM PACK
[JACK BOARD]
CNB903
CNP903
CNP901
CNP904
TO MECHA DECK
TO CNB914
TOTAL CURRENT
ACC OFF 2.8mA
POWER OFF
ACC ON 0.26A
FM 0.66A
AM 0.66A
TAPE ▷ 0.66A
▷▷ ◁◁ 0.65A
Q403,404,405
SOLENOID SWITCH
MOTOR B+ SWITCH
L/R MUTE CONTROL
Q102,103
Q202,203
MUTING
Q201
L-CH MUTE
Q201
R-CH MUTE
SD CONTROL SWITCH
SD SWITCH
TAPE/TUNER SELECT
DOLBY NR AMP
Q904
ILLUMINATION B+ SWITCH
Q908,909
BATTERY CHECK B+ DET
Q910
MUTE DELAY
Q905,911
PANEL DETECT
Q906
LAMP B+ SWITCH
Q907
TUNER CONTROL SWITCH
Q903
ACC SWITCH
Q901
LAMP DIMMER
Q902
ANT CONTROL
Q1
FM DX/LOCAL SWITCH
Q13
AM DX/LOCAL SWITCH
Q5,6,7
AM/FM SWEEP/LPF
Q3
FM IF AMP
Q4
AM IF AMP
Q401
SOLENOID SWITCH
Q402
MOTOR CONTROL SWITCH
Q403
MOTOR B+ SWITCH
Q404
L/R MUTE CONTROL
Q405
MOTOR B+ SWITCH
Q407
BIAS SWITCH
Q408
TAPE B
Q409
TAPE A
Q410
REC MUTE
Q411
REC MUTE
Q412
SD SWITCH
Q501
Q502
Q503
Q504
Q505
Q506
Q507
Q508
Q509
Q510
Q511
Q512
Q513
Q514
Q515
Q516
Q517
Q518
Q519
Q520
Q521
Q522
Q523
Q524
Q525
Q526
Q527
Q528
Q529
Q530
Q531
Q532
Q533
Q534
Q535
Q536
Q537
Q538
Q539
Q540

4-7. LCD UNIT (LC1)

• **SEGMENT**



• **COMMON**



4-8. IC DESCRIPTION

• **IC701, LC7582**

CD driver for displaying the frequency of the electronic tuning

Pin No.	Pin Name	I/O	Description
1 to 23	S1 to S23	O	Segment output terminal
24	OPEN	–	NC
25 to 44	S24 to S43	O	Segment output terminal
45	S44 (DSP2)	I/O	Segment output or DSP input terminal
46	S45 (AD2)	I/O	Segment output or AD input terminal
47	S46 (DSP1)	I/O	Segment output or DSP input terminal
48	S47 (AD1)	I/O	Segment output or AD input terminal
49	S48 (DSP OUT)	I/O	Segment output or DSP output terminal
50	S49 (AD01)	I/O	Segment output or AD1 output terminal
51	S50 (AD02)	I/O	Segment output or AD2 output terminal
52	S51 (AD03)	I/O	Segment output or AD3 output terminal
53	S52 (AD04)	I/O	Segment output or AD4 output terminal
54	S53 (Ad05)	I/O	Segment output or AD5 output terminal
55	OSC	–	Oscillation terminal
56	VDD	I	Power supply terminal, + VDD
57	INH	I	Display OFF input terminal (output driver only)
58	VLCD	I	LCD bias voltage setting terminal
59	Vss	I	Power supply terminal, GND
60	CE	I	Serial chip selector input terminal
61	CLK	I	Serial clock input terminal
62	DATA	I	Serial data input terminal
63	COM2	O	Common output terminal (Note)
64	COM1	O	Common output terminal

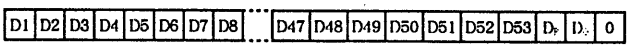
(Note) COM1 is used for 1/1 duty and COM2 is set to OPEN.

• The function selection of DSP and AD I/O is controlled with command from the system controller.

Data Transmission System

• 1/1 duty

Direction of the transmission (56 bits)



D1 to D53 : Display data (1/1 duty). Lit when "1".

(Note) For the AD and DSP selection ;

1/1 duty : D46 to D53 are invalid.

DP:Drive system selection bit

1/1 duty when "0".

DQ:AD and DSP function selection bit

AD and DSP function when "1".

Segment output when "0".

X :Invalid data

(Note) When the AD or DSP function is not selected, make sure to fix AD1, AD2, DSP1 and DSP2 terminals to VDD or Vss.

Transmission Data (external input) and Output Pin

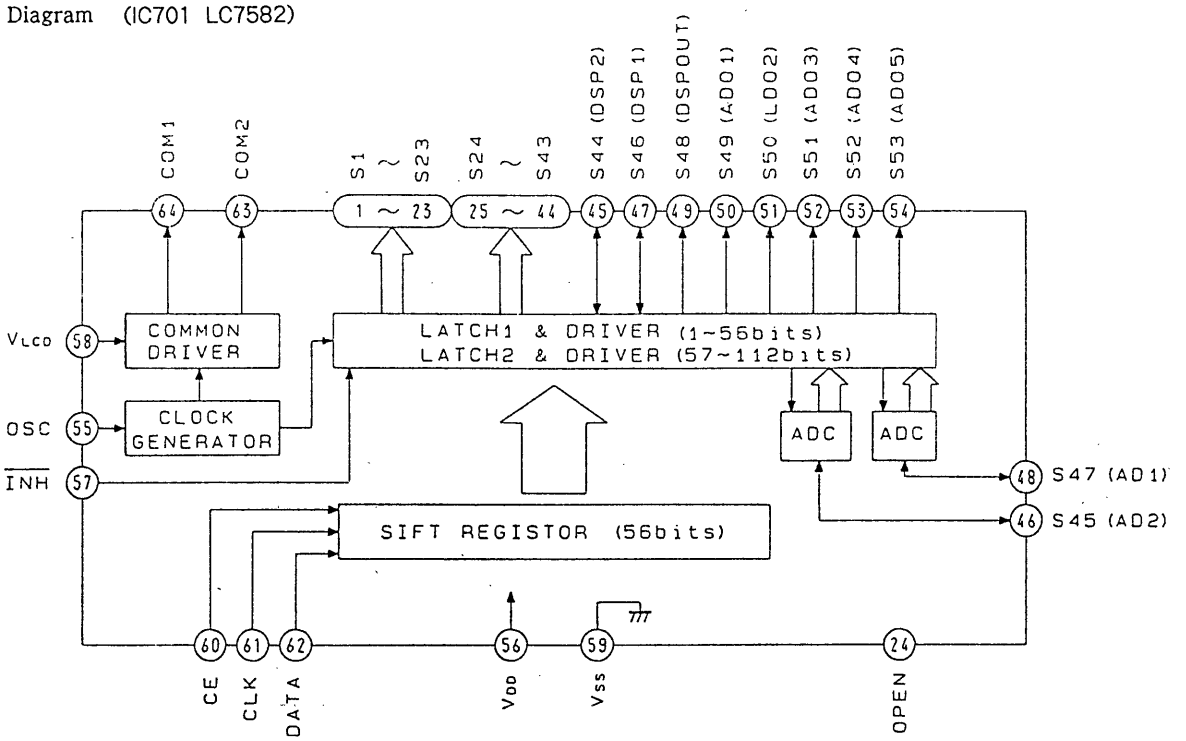
(Note) Only COM1 is used when 1/1 duty.

DP / DQ / Output Terminal	0		COM1	COM2
	0	1		
	1/1 duty			
S1	D1	D1	○	○
S2	D2	D2	○	○
S3	D3	D3	○	○
⋮	⋮	⋮	⋮	⋮
S26	D26	D26	○	○
S27	D27	D27	○	○
S28	D28	D28	○	○
⋮	⋮	⋮	⋮	⋮
S43	D43	D43	○	○
S44	D44	D44	○	○
S45	D45	D45	○	○
S46	D46	* DSP1	○	○
S47	D47	* ARI	○	○
S48	D48	* DISPO1		○
S49	D49	* ARO1	○	○
S50	D50	* ARO2	○	○
S51	D51	* ARO3	○	○
S52	D52	* ARO4	○	○
S53	D53	* ARO5	○	○

Descriptions for "*":

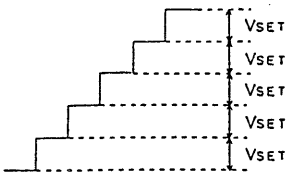
- DSP1 : External display input data name, DSPO1 for output.
- DSPO1 : External display output data name, DSP1 for input.
- ARI : Input data name of AD converter, ARO1 to ARO5 for output.
- ARO1 to AR05 : Output data name of AD converter, ARI for input.
- ALO1 to ALO5 : Output data name of AD converter, ALI for input.

• Block Diagram (IC701 LC7582)



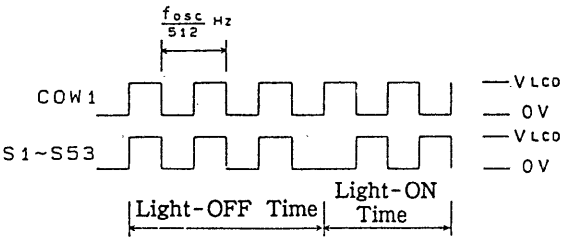
• Step Voltage Difference

Input voltage of S45 (AD2) and S47 (AD1)



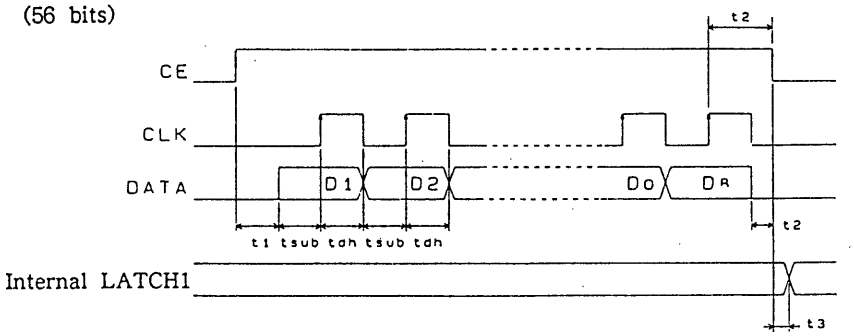
• Output Waveform

• 1/1 duty



• Serial Data

• 1/1 duty (56 bits)



• **IC301** μPD17005 (System control)

Pin No.	Pin Name	Name	I/O	Active
1	POC1	KR1	I	–
2	POC0	KR0	I	–
3	SDA	SO	O	–
4	SCL	SCK	O	–
5	POA1	/LCD BLK	O	L
6	POA0	LCD_CE	O-P	H
7	POB3	VOL_CE	O-P	H
8	POB2	SK	I-P	H
9	POB1	DK	I	H
10	POB0	NC	I	–
11	INT1	MUTE_REQ	I	H
12	INT0	BU	I	H
13	CE	CE	I	H
14	P1A3	/FF-REW	I	L
15	P1A2	N – R	I	–
16	P1A1	/TAPE	I	L
17	P1A0	REM_IN	I	H
18	P1B3	/LW	O-N	L
19	P1B2	/AGCC	O-N	L
20	P1B1	/FM – AM	O-N	H
21	CGP	BEEP	O-P	/
22	P1C3	POWER	O-P	H
23	P1C2	COLOR	O-P	H/L
24	P1C1	FM	O-P	H
25	P1C0	AM	O-P	H
26	FMIFC	FMIFC	I	–
27	AMIFC	AMIFC	I	–
28	ADC1	SDL	I	LEVEL
29	P1D0	/STREO	I	L
42	P2A0	NC	O-P	–
43	COM1	NC	O	–
44	COM0	NC	O	–
45	POF3	LOCAL	O	H
46	POF2	MUTE	O-P	H
47	POF1	SIG1	O-P	–
48	POF0	SIG2	O-P	–
49	POE3	LOUD	O-P	H
50	POE2	TAPE + B	O-P	H
51	POE1	/DOLBY	O-P	L
52	POE0	METAL	O-P	H
53	POX5	/AMS OUT	O-P	L
54	POX4	RADIO	O-P	H
55	POX3	IFC_CND	O-P	H
56	POX2	REM_OUT	O-P	H
57	POX1	MOTOR_OUT	O-P	H
58	POX0	MONO	O-P	H
59 ~ 70		NC	O-P	–
71	POY3	KS3	O	H
72	POY2	KS2	O	H
73	POY1	KS1	O	H
74	POY0	KS0	O	H
75		NC	I	–
76	ADC4	KAD0	–	–
77	ADC3	KAD1	–	–
78	ADC2	KAD0	–	–
79	POC3	KR3	I	–
80	POC2	KR2	I	–

* : O-P : COMS push pull output
O-N : N-ch open drain output

* [ ] : IC Pin No.

[1] [2]
A diode switch is read through these terminals and a initial setting mode of a microcomputer is determined.

[3] [4]
Serial data output terminal. Data of LCD and the electric volume outputs.

[5]
LCD display control terminal. Displaying or non-displaying of LCD is controlled.

[6]
LCD data output control terminal. When this terminal is high, the serial data of LCD outputs.

[7]
Electric volume data output control terminal. When this terminal is high, the serial data of the electric volume outputs.

[8]
Traffic data station input terminal. When the ARI system is applicable, this terminal is operated. When this terminal is high, "SK" is displayed on LCD.

[9]
Traffic data station input terminal. When the ARI system is applicable, this terminal is operated. When the DK station is waited and this terminal is high ;

- SDK display blinks
- A current operation is stopped and the DK station is received in the tape/AUX mode.

[11]
MUTE output request signal terminal. When this terminal is high, the MUTE (46) terminal is high.

[12]
Back-up power input terminal. When the CE terminal and this terminal are set to low, the microcomputer conducts the clock stop operation and maintains the data of the preset memory. When VDD is set to 3.5 V or less, the power is turned ON, the memory is reset and initialized.

[13]

Microcomputer operation selection input terminal. When "High", the microcomputer operates normally. When the BU terminal is set to high and this terminal is set to low, the microcomputer conducts the halt operation and stops instantaneously. This terminal is a Schmitt trigger input includes the hysteresis and the level within 100-165 μS is not applicable.

Note : When this terminal is low in the FM reception, EO_{12} may be changed. It is necessary to set the MUTE_REQ terminal to high before setting this terminal to low.

Back-up State

* Vdd = 3.5 V or more

CE	BU	Clock operation	Memory maintain	Microcomputer	Power consumption
L	L	Stop	YES	STOP	15 uA (Max.)
	H	Operating	YES	HALT	10 mA (Max.)
H	L	Operating	YES	Key input inhibit	Normal
	H	Operating	YES	Normal operation	Normal

[14]

FF-REW state input terminal. FF-REW state is detected.

[15]

N-R input. Tape transition state input terminal. The transition state is detected.

[16]

Tape signal input terminal. A state of the mechanical deck is detected.

Low	Tape
High	No tape

[17]

AUX input terminal. The AUX state is detected.

[18]

LOCAL/DX state terminal. Output is inverted with the SENS key. LOCAL outputs when high.

[19]

/AGCC output. Auto gain cut signal output terminal. High level signal outputs in the memory scan and the SEEK operation.

[21]

Beep sound output terminal. When an applicable key is pressed, the beep sound signal outputs for 40 ms. The frequency of the beep sound is changed with the pressing time.

	Frequency
Pressed normally	2.25 kHz
Pressed for two	750 Hz

[22]

Power control terminal for the whole set. High outputs when radio, tape or aux mode.

[23]

Illumination color switching output terminal. Output is inverted by pressing the SEL + M1 keys.

[24] [25] [45] [20]

Band selection signal is output.

[26]

FM intermediate frequency input terminal. When 10.7 MHz ± 12.5 kHz signal is input to this terminal, it is discriminated that a broadcast station is selected. The direct current is cut with the capacitor because an alternate amplifier is built in.

[27]

AM (MW/LW) intermediate frequency input terminal. When the signal of 450 kHz ± 2 kHz is input to this terminal, it is discriminated that a broadcast station is selected. The direct current is cut with the capacitor because an alternate amplifier is built in.

[28]

SDL level signal input terminal. When the voltage of this terminal is more than the specified value, there is a broadcast station is selected.

Note : This terminal and the intermediate frequency in the SEEK operation are checked and the broadcast station selection is discriminated.

FM	10.5/64 Vp-p or more
AM	6.5/64 Vp-p or more

[29]
STEREO input terminal. When this terminal is low in the FM stereo input waiting mode, the LCD is lit.

[46]
Mute signal output terminal. When switching the function, high outputs for the time more than the noise time.

[47] [48]
Mode switching signal output terminal. Outputs are applicable for the mode as shown in the table.

Mode	SIG1	SIG2
OFF	L	L
Radio	L	L
AUX	L	H
Tape	H	L

[49]
LOUD signal output terminal. Output is inverted by pressing the LOUD key in the mode other than the OFF.

[50]
Tape power control terminal. When the tape function is selected, a high signal outputs.

[51]
Dolby control terminal. When Dolby function is selected, a low signal outputs.

[52]
Metal control output. When the METAL function is selected, a high signal outputs.

[53]
AMS control output. The AMS function is selected and a low signal outputs in the FF-REW mode.

[54]
Radio power signal terminal. When ATA is selected in the radio or tape mode, the output signal is high.

[55]
IF count request signal output terminal. When the SD level is more than the specified value in the SEEK operation, this terminal is high and the intermediate frequency is requested to be output.

[56]
AUX signal state output terminal. When the set is in the AUX mode, a high signal outputs.

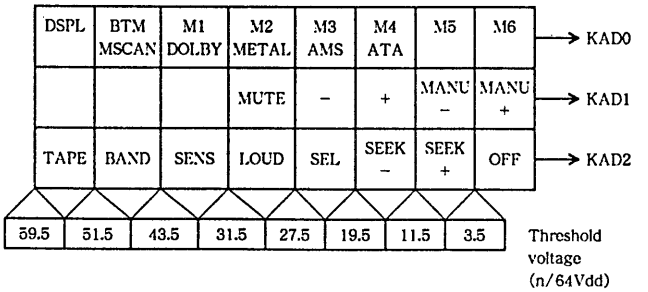
[57]
Motor control terminal. When the tape function is selected, a high signal outputs.

[58]
Forced MONO output terminal. Output is inverted with the SENS key. Forced MONO outputs when high.

[58]
Illumination ON/OFF output terminal

[71] [72] [73] [74]
A diode switch is read through these terminals and a initial setting mode of a microcomputer is determined.

[76] [77] [78]
A resistance value of the key input resistor circuit is scanned and it is detected which key is pressed.



When the voltages of the terminals are as shown below ;
KAD0 = 2.5/64Vdd
KAD1 = 62.5/64Vdd
KAD2 = 62.5/64Vdd
it is discriminated that M6 key is pressed.

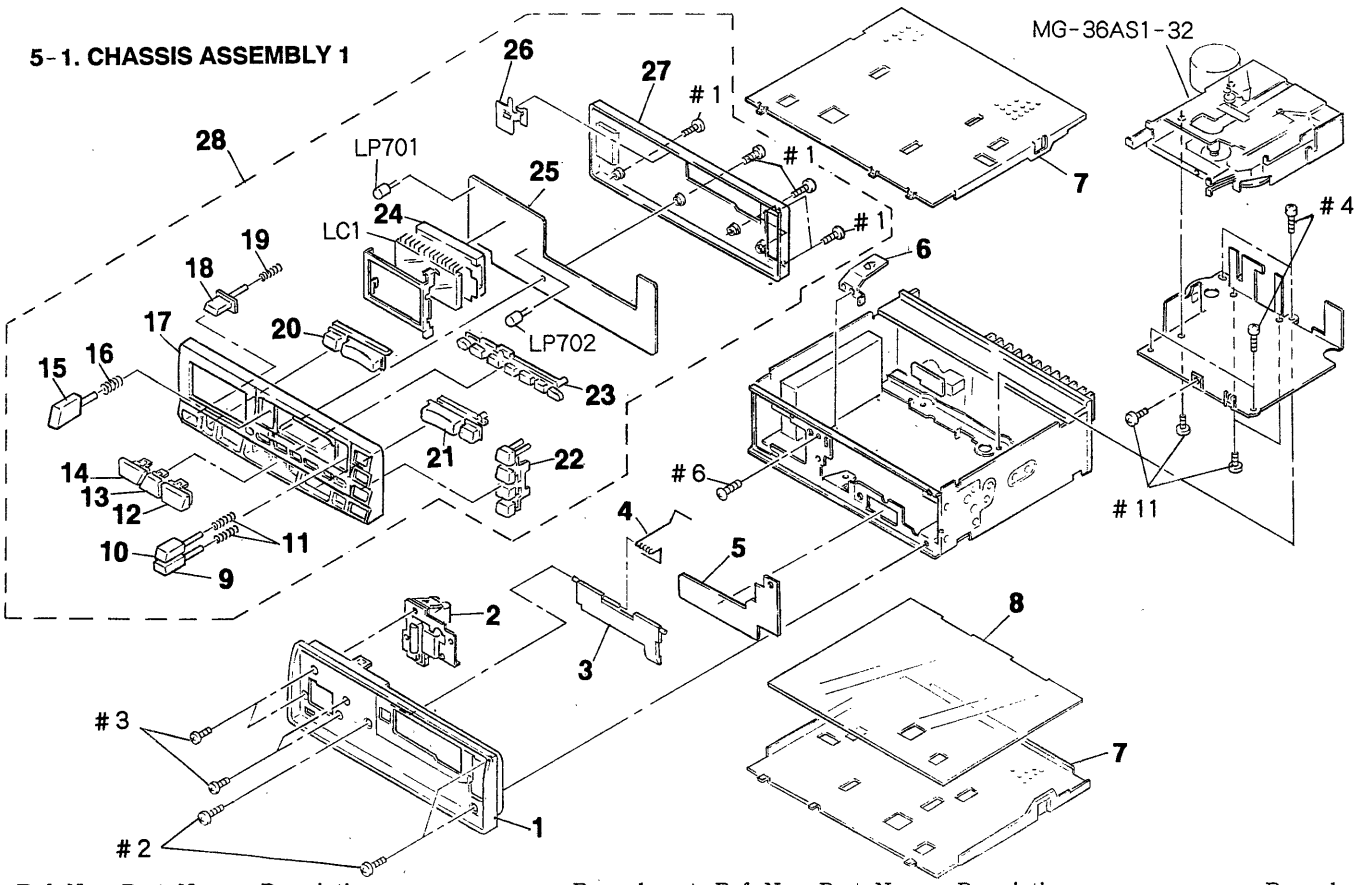
[79] [80]
A diode switch is read through these terminals and a initial setting mode of a microcomputer is determined.

SECTION 5
EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE)...(RED)
  ↑ ↑
  Parts color Cabinet's color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

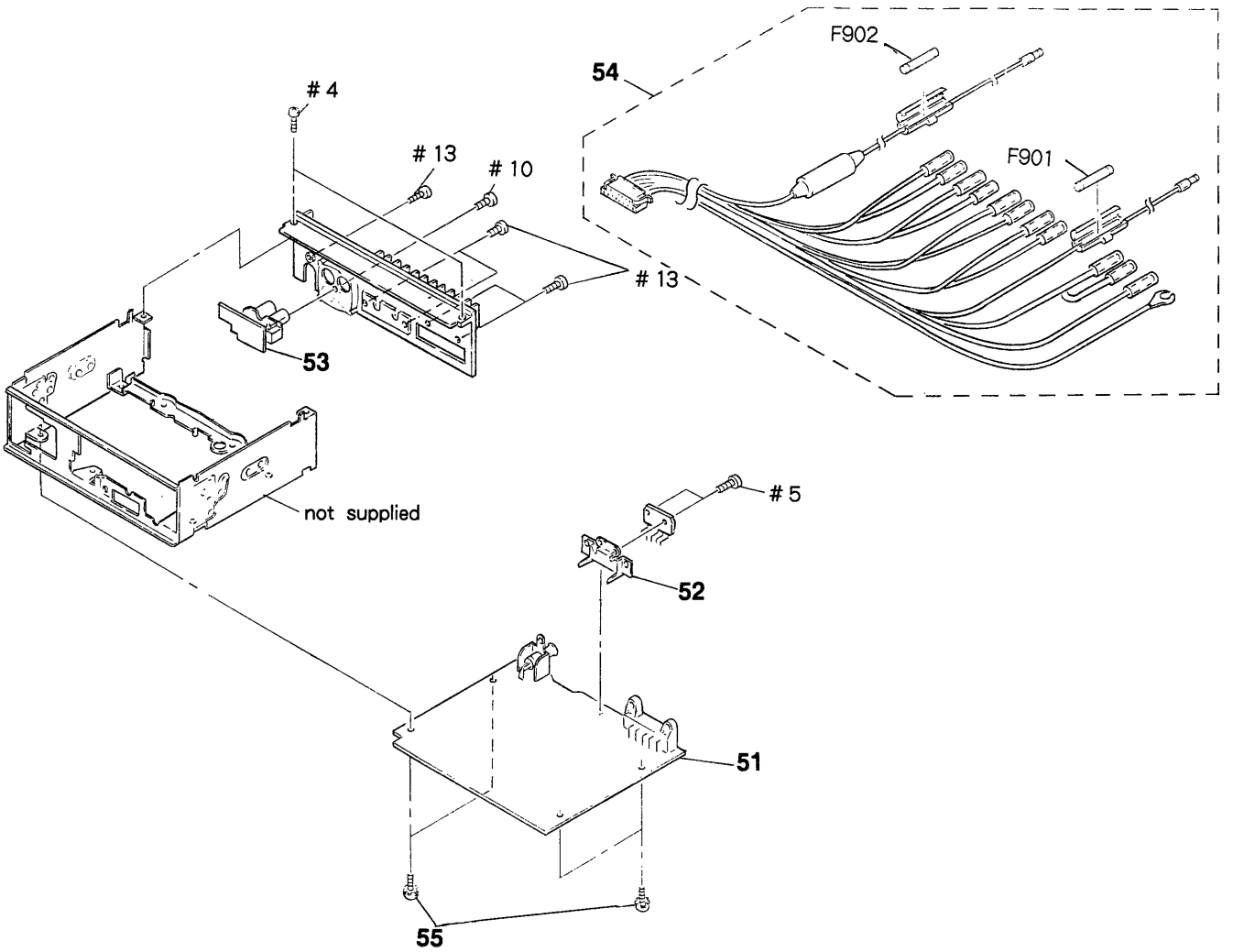
5-1. CHASSIS ASSEMBLY 1



Ref. No.	Part No.	Description	Remarks
1	3-384-659-01	PANEL, SUB	
2	X-3365-507-2	LOCK ASSY	
3	3-385-895-01	DOOR, CASSETTE	
4	3-377-892-01	SPRING (C DOOR), TORSION	
* 5	1-646-385-11	RELAY BOARD	
6	3-387-688-01	PLATE (R), LOCK (US, Canadian)	
* 7	3-377-591-01	COVER	
* 8	3-377-593-21	INSULATOR	
9	3-384-654-01	BUTTON (REW)	
10	3-384-653-01	BUTTON (FF)	
11	3-375-372-01	SPRING (F/R)	
12	3-384-648-01	BUTTON (+)	
13	3-384-650-01	BUTTON (SEL)	
14	3-384-649-01	BUTTON (-)	
15	X-3366-086-1	BUTTON (EJECT) ASSY	

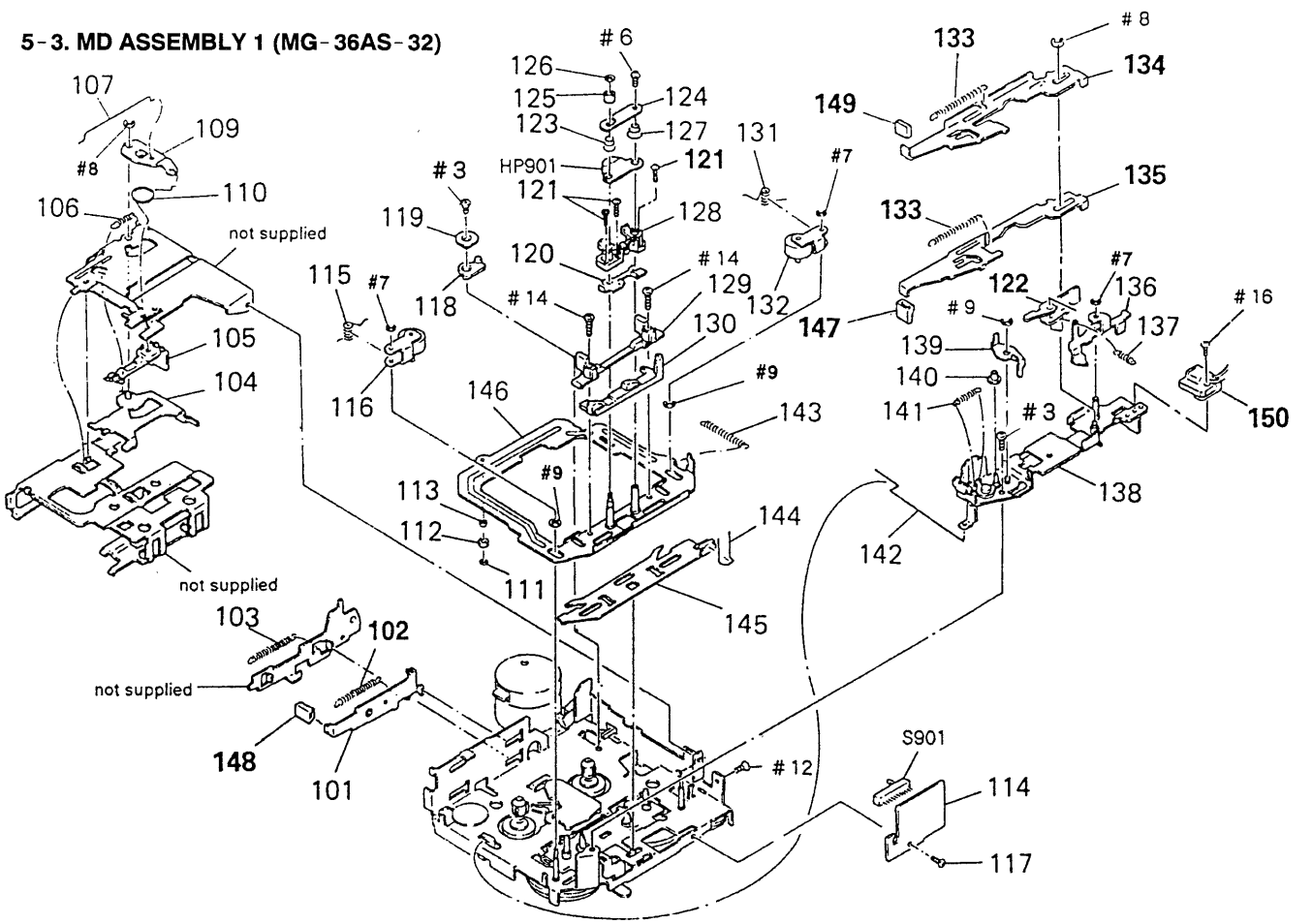
Ref. No.	Part No.	Description	Remarks
16	3-375-371-01	SPRING (EJECT)	
17	3-384-641-01	PANEL, FRONT	
18	3-384-652-01	BUTTON (RELEASE)	
19	3-375-373-01	SPRING (RELEASE)	
20	3-384-647-01	BUTTON (SEEK)	
21	3-384-646-01	BUTTON (MANU)	
22	3-384-645-01	BUTTON (R4)	
23	3-384-651-01	BUTTON (1-6)	
* 24	3-357-087-01	HOLDER (LCD)	
* 25	A-3295-333-A	MOUNTED PCB (B), SW	
* 26	3-387-815-01	PLATE (LCD), GROUND	
27	3-384-643-01	PANEL, FRONT BACK	
28	A-3252-602-A	PANEL ASSY, FRONT	
LC1	1-808-975-51	DISPLAY PANEL, LIQUID CRYSTAL	
LP701	1-517-156-11	LAMP, PILOT	
LP702	1-517-156-11	LAMP, PILOT	

5-2. CHASSIS ASSEMBLY 2



Ref. No.	Part No.	Description	Remarks
* 51	A-3295-328-A	MOUNTED PCB (B), MAIN (US, Canadian)	
* 51	A-3295-370-A	MOUNTED PCB (B), MAIN (E)	
* 52	3-384-663-01	HEAT SINK	
* 53	1-646-386-11	JACK BOARD	
54	1-696-838-21	CORD (WITH CONNECTOR)	
55	3-376-464-11	SCREW +PTT 2.6X6	
F901	1-532-414-11	FUSE, GLASS TUBE 1A	
F902	1-532-678-11	FUSE, GLASS TUBE 12A	

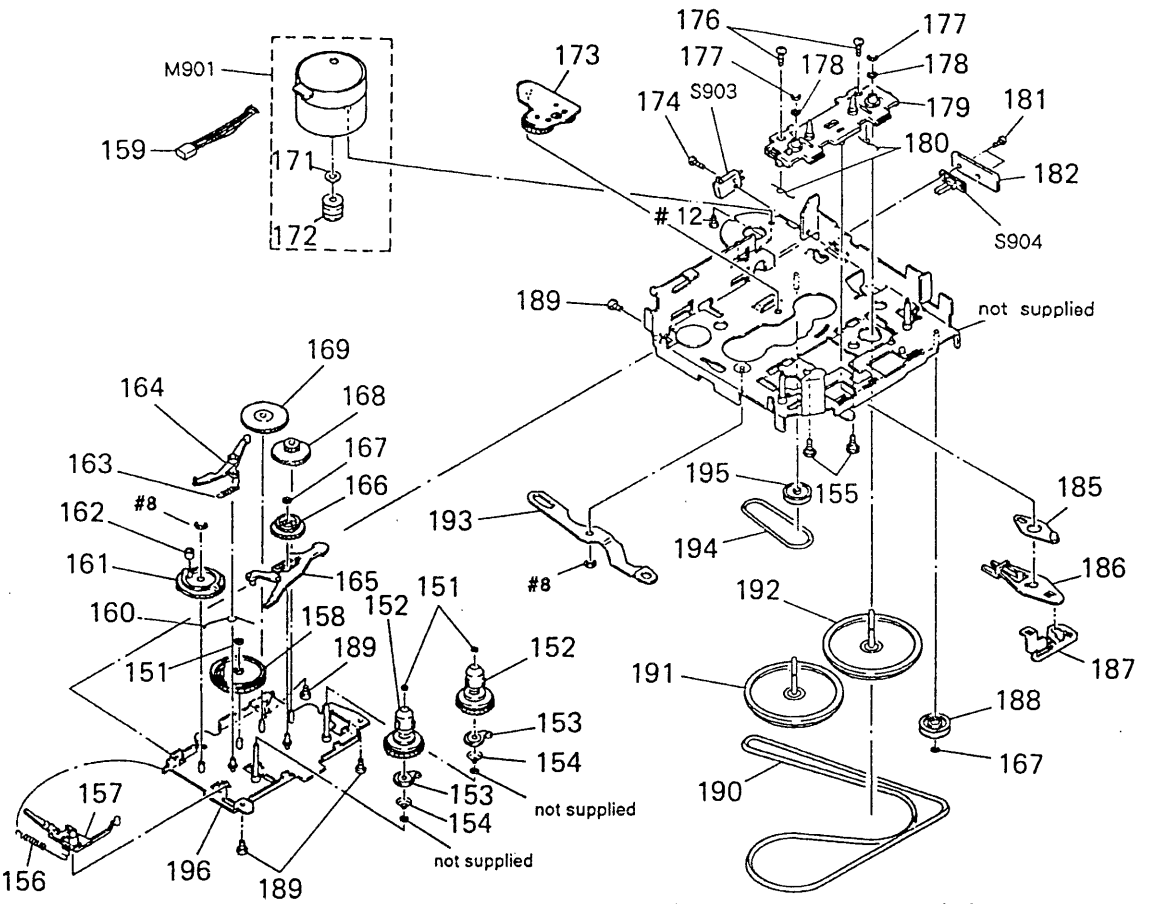
5-3. MD ASSEMBLY 1 (MG-36AS-32)



Ref. No.	Part No.	Description	Remarks
* 101	3-379-144-01	LEVER (S), EJECT	
102	3-392-950-01	SPRING	
103	3-392-951-01	SPRING	
* 104	3-392-921-01	LOCK ASSY, EJECT CAM	
105	3-392-972-01		
106	3-392-953-01	SPRING	
107	3-392-969-01	LINK, RETURN	
* 109	3-392-932-01	PLATE, CENTER	
110	3-392-961-01	SPRING (B)	
111	3-570-615-00	POLY-WASHER (DIA. 1.2)	
112	3-392-945-01	ROLLER (A), H.P	
113	3-392-942-01	ROLLER (B), H.P	
114	3-392-970-01	CHASSIS, SWITCH	
115	3-392-958-01	SPRING (R)	
116	3-375-378-01	ARM (R) ASSY, PINCH	
* 117	4-908-792-11	SCREW (B2X3), TAPPING, P1	
118	3-372-244-01	ARM (N), MUTE	
* 119	3-397-427-01	COLLAR, MUTE ARM	
120	3-377-908-01	SHIM (X), ADJUSTOR	
121	3-375-379-01	SCREW, AZIMUTH	
122	3-392-903-01	ARM, RELEASE	
123	3-392-956-01	SPRING (A)	
* 124	3-392-930-01	RETAINER, SPRING	
125	3-392-943-01	ROLLER, FF	
126	3-676-387-00	POLY-SLIDER (DIA. 1.6)	

Ref. No.	Part No.	Description	Remarks
127	3-392-955-01	SPRING (A)	
* 128	3-379-142-01	ARM (B), ADJUSTOR	
129	3-392-984-02	GUIDE, TAPE	
130	3-377-909-02	LINK (X), ADJUSTOR	
131	3-392-957-01	SPRING (F)	
132	3-375-377-01	ARM (F) ASSY, PINCH	
133	3-392-948-01	SPRING	
* 134	3-379-118-01	LEVER (AS), FF	
* 135	3-379-117-01	LEVER (AS), REW	
* 136	3-392-904-01	ARM (A), LOCK	
137	3-392-902-01	SPRING (A)	
* 138	3-372-242-01	BRACKET ASSY (D), LEVER	
* 139	3-392-933-01	LEVER (B), CHANGE	
140	3-392-994-01	ROLLER, PROGRAM	
141	3-392-954-01	SPRING	
142	3-372-243-01	LINK (B), SELECTOR	
143	3-392-952-01	SPRING	
144	3-392-962-01	SPRING	
* 145	3-392-919-01	ARM ASSY, F,R SELECTION	
* 146	3-392-975-05	PLATE ASSY (S), HEAD	
* 147	3-379-139-01	BUTTON, REW	
* 148	3-379-140-01	BUTTON, EJECT	
* 149	3-379-141-01	BUTTON, FF	
150	1-454-464-12	SOLENOID, PLUNGER	
HP901	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)	
S901	1-692-036-11	SWITCH, SLIDE	

5-4. MD ASSEMBLY 2 (MG-36AS-32)



Ref. No.	Part No.	Description	Remarks
151	3-676-387-00	POLY-SLIDER (DIA. 1.6)	
152	3-385-263-01	SPINDLE ASSY (D), REEL	
153	3-375-380-01	CAM ASSY, DETECTION	
154	3-370-619-01	SPRING, BACK TENSION	
155	3-392-918-01	SCREW, EJECT HOOK	
156	3-392-959-01	SPRING	
157	3-392-985-02	RATCHET	
158	3-392-990-01	GEAR, DETECTION	
159	3-387-913-01	CONNECTOR ASSY, 13P	
160	3-392-960-01	SPRING	
161	3-392-987-01	GEAR, SELECTOR	
162	3-392-944-01	COLLAR (CELECTER GEAR)	
163	3-375-131-01	SPRING, GEAR LOCK ARM	
164	3-392-989-02	ARM, GEAR LOCK	
165	3-392-986-01	ARM, SENSOR	
166	3-392-915-01	GEAR, IDLE	
167	3-570-615-00	POLY-WASHER (DIA. 1.2)	
168	3-392-936-01	GEAR (A)	
169	3-392-937-01	GEAR (B)	
* 171	3-392-912-01	WASHER, MYLAR	
* 172	3-392-913-01	PULLEY, MOTOR	
173	3-392-916-01	ARM ASSY, TU GEAR	
174	3-318-203-11	SCREW (B1.7X6), TAPPING	

Ref. No.	Part No.	Description	Remarks
176	3-318-204-81	SCREW (M1.7X3), TAPPING	
177	3-590-768-00	RING (A), E	
178	3-701-437-11	POLY-SLIDER (A)	
* 179	3-375-381-01	BRACKET ASSY (X), CM	
180	3-392-963-01	SPRING (R)	
181	3-318-204-91	SCREW (M1.7X4), TAPPING	
182	3-375-376-01	MUTE (PWB)	
* 185	3-392-925-01	ARM (A) ASSY, F.R	
* 186	3-392-939-01	ARM, FF	
* 187	3-392-934-01	ARM (B), F.R	
188	3-392-941-01	PULLEY (A), IDLE	
* 189	4-908-792-11	SCREW (B2X3), TAPPING, P1	
190	3-392-967-01	BELT, MAIN	
191	3-392-995-02	FLYWHEEL ASSY (BR)	
192	3-392-926-02	FLYWHEEL ASSY (BF)	
* 193	3-392-979-01	LEVER, REVERSE	
194	3-375-375-02	BELT (C), SUB	
195	3-392-938-01	GEAR, PULLY	
* 196	3-392-976-01	BASE ASSY, REEL	
M901	X-3364-496-1	MOTOR ASSY	
S903	1-692-065-11	SWITCH, LEAF	
S904	1-554-790-21	SWITCH, POWER	

JACK | **MAIN**

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- −XX, −X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL : metal-film resistor
  METAL OXIDE : Metal Oxide-film resistor
  F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example :
  uA... : μA... , uPA... , μPA... , uPB... , μPB... , uPC... , μPC... , uPD..., μPD...
- CAPACITORS :
  uF : μF
- COILS
  uH : μH

Ref. No.	Part No.	Description			Remarks
*	1-646-386-11	JACK BOARD			
		**********			
		< JACK >			
	CNJ903 1-573-744-11	JACK, PIN 2P (LINE OUT REAR)			
**********					
*	A-3295-328-A	MAIN BOARD, COMPLETE (US, Canadian)			
		**********			
*	A-3295-370-A	MAIN BOARD, COMPLETE (E)			
		**********			
		< CAPACITOR >			
C1	1-163-157-00	FILM	0.022uF	5%	50V
C2	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C3	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C4	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C5	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C8	1-124-229-00	ELECT	33uF	20%	10V
C9	1-136-175-00	FILM	0.068uF	5%	50V
C10	1-126-162-11	ELECT	3.3uF	20%	50V
C11	1-126-162-11	ELECT	3.3uF	20%	50V
C13	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C14	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C15	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C16	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C17	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C18	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C19	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C20	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C21	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C22	1-164-343-11	CERAMIC CHIP	0.056uF	10%	25V
C23	1-124-252-00	ELECT	0.33uF	20%	50V
C24	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C25	1-126-288-11	ELECT	4.7uF	20%	16V
C26	1-126-301-11	ELECT	1uF	20%	50V
C27	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C28	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C29	1-126-301-11	ELECT	1uF	20%	50V
C30	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C31	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C32	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C33	1-126-157-11	ELECT	10uF	20%	16V
C34	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C35	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C36	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C37	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C38	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C39	1-124-257-00	ELECT	2.2uF	20%	50V
C40	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C41	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C42	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C43	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C44	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C48	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C49	1-124-229-00	ELECT	33uF	20%	10V
C50	1-124-229-00	ELECT	33uF	20%	10V
C51	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C52	1-126-154-11	ELECT	47uF	20%	6.3V
C53	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C55	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C57	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C101	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C103	1-126-154-11	ELECT	47uF	20%	6.3V
C104	1-136-153-00	FILM	0.01uF	5%	50V
C105	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C106	1-126-157-11	ELECT	10uF	20%	16V
C107	1-126-301-11	ELECT	1uF	20%	50V

Ref. No.	Part No.	Description			Remarks
C109	1-126-288-11	ELECT	4.7uF	20%	16V
C110	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C111	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C112	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C113	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C114	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C116	1-126-157-11	ELECT	10uF	20%	16V
C117	1-126-157-11	ELECT	10uF	20%	16V
C118	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C119	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C122	1-136-165-00	FILM	0.1uF	5%	50V
C123	1-136-165-00	FILM	0.1uF	5%	50V
C124	1-136-165-00	FILM	0.1uF	5%	50V
C125	1-136-165-00	FILM	0.1uF	5%	50V
C127	1-126-301-11	ELECT	1uF	20%	50V
C201	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C203	1-126-154-11	ELECT	47uF	20%	6.3V
C204	1-136-153-00	FILM	0.01uF	5%	50V
C205	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C206	1-126-157-11	ELECT	10uF	20%	16V
C207	1-126-301-11	ELECT	1uF	20%	50V
C209	1-126-288-11	ELECT	4.7uF	20%	16V
C210	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C211	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C212	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C213	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C214	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C216	1-126-157-11	ELECT	10uF	20%	16V
C217	1-126-157-11	ELECT	10uF	20%	16V
C218	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C219	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C222	1-136-165-00	FILM	0.1uF	5%	50V
C223	1-136-165-00	FILM	0.1uF	5%	50V
C224	1-136-165-00	FILM	0.1uF	5%	50V
C225	1-136-165-00	FILM	0.1uF	5%	50V
C227	1-126-301-11	ELECT	1uF	20%	50V
C301	1-126-288-11	ELECT	4.7uF	20%	16V
C302	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C303	1-124-229-00	ELECT	33uF	20%	10V
C304	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C305	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C306	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C307	1-125-701-11	CAP, DOUBLE LAYER	0.047F		
C401	1-126-301-11	ELECT	1uF	20%	50V
C402	1-126-157-11	ELECT	10uF	20%	16V
C403	1-126-159-11	ELECT	0.47uF	20%	50V
C404	1-126-157-11	ELECT	10uF	20%	16V
C405	1-126-162-11	ELECT	3.3uF	20%	50V
C406	1-124-229-00	ELECT	33uF	20%	10V
C407	1-126-153-11	ELECT	22uF	20%	6.3V

Ref. No.	Part No.	Description			Remarks
C408	1-126-157-11	ELECT	10uF	20%	16V
C409	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C410	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C411	1-124-584-00	ELECT	100uF	20%	10V
C413	1-124-254-00	ELECT	0.68uF	20%	50V
C414	1-124-584-00	ELECT	100uF	20%	10V
C415	1-126-157-11	ELECT	10uF	20%	16V
C416	1-124-254-00	ELECT	0.68uF	20%	50V
C417	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C418	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C419	1-126-157-11	ELECT	10uF	20%	16V
C420	1-124-229-00	ELECT	33uF	20%	10V
C422	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C423	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C424	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C426	1-124-229-00	ELECT	33uF	20%	10V
C428	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C501	1-128-268-11	ELECT	3300uF	20%	16V
C502	1-136-173-00	FILM	0.47uF	5%	50V
C503	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C504	1-124-584-00	ELECT	100uF	20%	10V
C505	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C506	1-126-157-11	ELECT	10uF	20%	16V
C901	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C906	1-126-288-11	ELECT	4.7uF	20%	16V
C907	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C908	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C909	1-124-229-00	ELECT	33uF	20%	10V
C910	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C911	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C914	1-126-301-11	ELECT	1uF	20%	50V
C915	1-126-301-11	ELECT	1uF	20%	50V
C916	1-126-157-11	ELECT	10uF	20%	16V
C917	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C918	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V

< FILTER >

CF1	1-579-568-11	FILTER, CERAMIC
CF2	1-579-568-11	FILTER, CERAMIC

< JACK >

CNJ1	1-691-512-11	SOCKET, CONNECTOR (ANT)
* CNJ902	1-563-464-11	SOCKET, CONNECTOR 10P

< CONNECTOR >

* CNP901	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P
* CNP903	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P
* CNP904	1-750-064-11	PLUG, CONNECTOR 15P

MAIN

Ref. No.	Part No.	Description	Remarks
		< DIODE >	
D1	8-719-911-19	DIODE 1SS119	
D2	8-719-911-19	DIODE 1SS119	
D3	8-719-400-18	DIODE MA152WK	
D4	8-719-911-19	DIODE 1SS119	
D301	8-719-911-19	DIODE 1SS119	
D304	8-719-911-19	DIODE 1SS119	
D305	8-719-911-19	DIODE 1SS119	
D307	8-719-911-19	DIODE 1SS119	
D309	8-719-911-19	DIODE 1SS119	
D310	8-719-914-45	DIODE DAP202K	
D315	8-719-914-47	DIODE DAN202K	
D401	8-719-200-82	DIODE 11ES2	
D402	8-719-200-82	DIODE 11ES2	
D403	8-719-110-03	DIODE RD7.5ES	
D404	8-719-109-81	DIODE RD4.7ES	
D405	8-719-109-81	DIODE RD4.7ES	
D501	8-719-989-16	DIODE 1S2472	
D903	8-719-110-03	DIODE RD7.5ES	
D904	8-719-911-19	DIODE 1SS119	
D905	8-719-109-93	DIODE RD6.2ES	
D907	8-719-200-82	DIODE 11ES2	
D908	8-719-200-82	DIODE 11ES2	
D913	8-719-914-47	DIODE DAN202K	
		< IC >	
IC1	8-759-090-30	IC TA2027F	
IC301	8-759-165-39	IC uPD17005GF649-3B9	
IC302	8-759-209-97	IC TC4S81F	
IC401	8-759-076-00	IC M51524FP	
IC402	8-752-032-14	IC CXA1102M	
IC403	8-752-063-44	IC CXA1646Q	
IC404	8-759-909-71	IC BA4558F	
IC405	8-759-909-71	IC BA4558F	
IC501	8-759-159-98	IC 159-98	
IC901	8-759-163-80	IC BA-3910-V1	
		< JUMPER RESISTOR >	
JR102	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR103	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR105	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR106	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR110	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR111	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR112	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR113	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR115	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR116	1-216-295-00	METAL CHIP 0 5% 1/10W	

Ref. No.	Part No.	Description	Remarks
JR201	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR203	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR210	1-216-296-00	METAL CHIP 0 5% 1/8W	
		< COIL >	
L1	1-410-971-11	INDUCTOR 10uH	
L2	1-410-969-11	INDUCTOR 4.7uH	
L3	1-410-973-11	INDUCTOR 22uH	
L4	1-410-973-11	INDUCTOR 22uH	
L5	1-410-967-11	INDUCTOR 2.2uH	
L6	1-410-971-11	INDUCTOR 10uH	
L301	1-410-973-11	INDUCTOR 22uH	
		< TRANSISTOR >	
Q1	8-729-901-01	TRANSISTOR DTC144EK	
Q3	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q5	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q7	8-729-901-06	TRANSISTOR DTA144EK	
Q11	8-729-901-01	TRANSISTOR DTC144EK	
Q12	8-729-901-01	TRANSISTOR DTC144EK	
Q13	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q101	8-729-920-21	TRANSISTOR DTC314TKH04	
Q102	8-729-920-21	TRANSISTOR DTC314TKH04	
Q103	8-729-920-21	TRANSISTOR DTC314TKH04	
Q201	8-729-920-21	TRANSISTOR DTC314TKH04	
Q202	8-729-920-21	TRANSISTOR DTC314TKH04	
Q203	8-729-920-21	TRANSISTOR DTC314TKH04	
Q401	8-729-106-60	TRANSISTOR 2SB1115A	
Q402	8-729-900-53	TRANSISTOR DTC114EK	
Q403	8-729-216-22	TRANSISTOR 2SA1162	
Q404	8-729-901-01	TRANSISTOR DTC144EK	
Q405	8-729-807-33	TRANSISTOR 2SB1123	
Q406	8-729-901-06	TRANSISTOR DTA144EK	
Q407	8-729-901-01	TRANSISTOR DTC144EK	
Q903	8-729-901-98	TRANSISTOR 2SA1036K-R	
Q904	8-729-900-53	TRANSISTOR DTC114EK	
Q905	8-729-216-22	TRANSISTOR 2SA1162	
Q906	8-729-901-04	TRANSISTOR DTA114EK	
Q907	8-729-107-43	TRANSISTOR 2SC3624-L18	
Q908	8-729-901-06	TRANSISTOR DTA144EK	
Q909	8-729-901-01	TRANSISTOR DTC144EK	
Q910	8-729-216-22	TRANSISTOR 2SA1162	
Q911	8-729-901-01	TRANSISTOR DTC144EK	

Ref. No.	Part No.	Description			Remarks
		< RESISTOR >			
R1	1-216-081-00	METAL CHIP	22K	5%	1/10W
R2	1-216-073-00	METAL CHIP	10K	5%	1/10W
R8	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R9	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R10	1-216-049-00	METAL CHIP	1K	5%	1/10W
R11	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R12	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R13	1-216-017-00	METAL CHIP	47	5%	1/10W
R14	1-216-105-00	METAL CHIP	220K	5%	1/10W
R16	1-216-089-00	METAL CHIP	47K	5%	1/10W
R17	1-216-089-00	METAL CHIP	47K	5%	1/10W
R18	1-216-089-00	METAL CHIP	47K	5%	1/10W
R19	1-216-073-00	METAL CHIP	10K	5%	1/10W
R20	1-216-113-00	METAL CHIP	470K	5%	1/10W
R21	1-216-083-00	METAL CHIP	27K	5%	1/10W
R22	1-216-089-00	METAL CHIP	47K	5%	1/10W
R23	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R24	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R25	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R26	1-216-039-00	METAL CHIP	390	5%	1/10W
R27	1-216-073-00	METAL CHIP	10K	5%	1/10W
R28	1-216-075-00	METAL CHIP	12K	5%	1/10W
R29	1-216-064-00	METAL CHIP	4.3K	5%	1/10W
R30	1-216-073-00	METAL CHIP	10K	5%	1/10W
R31	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R32	1-216-073-00	METAL CHIP	10K	5%	1/10W
R33	1-216-073-00	METAL CHIP	10K	5%	1/10W
R34	1-216-073-00	METAL CHIP	10K	5%	1/10W
R35	1-216-075-00	METAL CHIP	12K	5%	1/10W
R36	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R37	1-216-097-00	METAL CHIP	100K	5%	1/10W
R38	1-216-085-00	METAL CHIP	33K	5%	1/10W
R39	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R40	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R41	1-216-046-00	METAL CHIP	750	5%	1/10W
R43	1-216-017-00	METAL CHIP	47	5%	1/10W
R45	1-216-089-00	METAL CHIP	47K	5%	1/10W
R46	1-216-083-00	METAL CHIP	27K	5%	1/10W
R47	1-216-083-00	METAL CHIP	27K	5%	1/10W
R48	1-216-089-00	METAL CHIP	47K	5%	1/10W
R49	1-216-039-00	METAL CHIP	390	5%	1/10W
R50	1-216-079-00	METAL CHIP	18K	5%	1/10W
R51	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R52	1-216-041-00	METAL CHIP	470	5%	1/10W
R53	1-216-049-00	METAL CHIP	1K	5%	1/10W
R54	1-216-025-00	METAL CHIP	100	5%	1/10W
R56	1-216-295-00	METAL CHIP	0	5%	1/10W
R58	1-216-295-00	METAL CHIP	0	5%	1/10W
R59	1-216-089-00	METAL CHIP	47K	5%	1/10W
R101	1-216-031-00	METAL CHIP	180	5%	1/10W
R102	1-216-081-00	METAL CHIP	22K	5%	1/10W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-109-00	METAL CHIP	330K	5%	1/10W
R105	1-216-041-00	METAL CHIP	470	5%	1/10W
R106	1-216-089-00	METAL CHIP	47K	5%	1/10W
R108	1-216-113-00	METAL CHIP	470K	5%	1/10W
R109	1-216-073-00	METAL CHIP	10K	5%	1/10W
R110	1-216-073-00	METAL CHIP	10K	5%	1/10W
R113	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R116	1-216-073-00	METAL CHIP	10K	5%	1/10W
R117	1-216-073-00	METAL CHIP	10K	5%	1/10W
R118	1-216-049-00	METAL CHIP	1K	5%	1/10W
R119	1-216-049-00	METAL CHIP	1K	5%	1/10W
R120	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R121	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R122	1-216-077-00	METAL CHIP	15K	5%	1/10W
R123	1-216-077-00	METAL CHIP	15K	5%	1/10W
R124	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R125	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R126	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R127	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R128	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R129	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R201	1-216-031-00	METAL CHIP	180	5%	1/10W
R202	1-216-081-00	METAL CHIP	22K	5%	1/10W
R203	1-216-077-00	METAL CHIP	15K	5%	1/10W
R204	1-216-109-00	METAL CHIP	330K	5%	1/10W
R205	1-216-041-00	METAL CHIP	470	5%	1/10W
R206	1-216-089-00	METAL CHIP	47K	5%	1/10W
R208	1-216-113-00	METAL CHIP	470K	5%	1/10W
R209	1-216-073-00	METAL CHIP	10K	5%	1/10W
R210	1-216-073-00	METAL CHIP	10K	5%	1/10W
R213	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R216	1-216-073-00	METAL CHIP	10K	5%	1/10W
R217	1-216-073-00	METAL CHIP	10K	5%	1/10W
R218	1-216-049-00	METAL CHIP	1K	5%	1/10W
R219	1-216-049-00	METAL CHIP	1K	5%	1/10W
R220	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R221	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R222	1-216-077-00	METAL CHIP	15K	5%	1/10W
R223	1-216-077-00	METAL CHIP	15K	5%	1/10W
R224	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R225	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R226	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R227	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R228	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R229	1-216-134-00	METAL CHIP	2.2	5%	1/8W

MAIN

Ref. No.	Part No.	Description			Remarks
R301	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R302	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R303	1-216-025-00	METAL CHIP	100	5%	1/10W
R304	1-216-073-00	METAL CHIP	10K	5%	1/10W
R306	1-216-049-00	METAL CHIP	1K	5%	1/10W
R307	1-216-113-00	METAL CHIP	470K	5%	1/10W
R308	1-216-049-00	METAL CHIP	1K	5%	1/10W
R310	1-216-089-00	METAL CHIP	47K	5%	1/10W
R311	1-216-105-00	METAL CHIP	220K	5%	1/10W
R312	1-216-089-00	METAL CHIP	47K	5%	1/10W
R313	1-216-049-00	METAL CHIP	1K	5%	1/10W
R315	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R316	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R317	1-216-049-00	METAL CHIP	1K	5%	1/10W
R318	1-216-049-00	METAL CHIP	1K	5%	1/10W
R319	1-216-049-00	METAL CHIP	1K	5%	1/10W
R320	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R321	1-216-085-00	METAL CHIP	33K	5%	1/10W
R322	1-216-085-00	METAL CHIP	33K	5%	1/10W
R323	1-216-234-00	METAL GLAZE	33K	5%	1/8W
R324	1-216-085-00	METAL CHIP	33K	5%	1/10W
R325	1-216-085-00	METAL CHIP	33K	5%	1/10W
R326	1-216-085-00	METAL CHIP	33K	5%	1/10W
R327	1-216-085-00	METAL CHIP	33K	5%	1/10W
R328	1-216-049-00	METAL CHIP	1K	5%	1/10W
R329	1-216-049-00	METAL CHIP	1K	5%	1/10W
R331	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R332	1-216-049-00	METAL CHIP	1K	5%	1/10W
R333	1-216-049-00	METAL CHIP	1K	5%	1/10W
R335	1-216-049-00	METAL CHIP	1K	5%	1/10W
R336	1-216-049-00	METAL CHIP	1K	5%	1/10W
R338	1-216-049-00	METAL CHIP	1K	5%	1/10W
R340	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R401	1-216-073-00	METAL CHIP	10K	5%	1/10W
R402	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R403	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R404	1-216-073-00	METAL CHIP	10K	5%	1/10W
R405	1-216-073-00	METAL CHIP	10K	5%	1/10W
R408	1-216-039-00	METAL CHIP	390	5%	1/10W
R409	1-216-113-00	METAL CHIP	470K	5%	1/10W
R411	1-216-081-00	METAL CHIP	22K	5%	1/10W
R412	1-216-001-00	METAL CHIP	10	5%	1/10W
R413	1-216-021-00	METAL CHIP	68	5%	1/10W
R414	1-216-088-00	METAL CHIP	43K	5%	1/10W
R415	1-216-073-00	METAL CHIP	10K	5%	1/10W
R418	1-216-017-00	METAL CHIP	47	5%	1/10W
R501	1-216-073-00	METAL CHIP	10K	5%	1/10W
R502	1-216-073-00	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R901	1-216-121-00	METAL CHIP	1M	5%	1/10W
R906	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R907	1-216-073-00	METAL CHIP	10K	5%	1/10W
R908	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R911	1-216-081-00	METAL CHIP	22K	5%	1/10W
R912	1-216-081-00	METAL CHIP	22K	5%	1/10W
R913	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R914	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R915	1-216-133-00	METAL CHIP	3.3M	5%	1/10W
R916	1-216-105-00	METAL CHIP	220K	5%	1/10W
R917	1-216-049-00	METAL CHIP	1K	5%	1/10W
R918	1-216-089-00	METAL CHIP	47K	5%	1/10W
R919	1-216-089-00	METAL CHIP	47K	5%	1/10W
R921	1-216-073-00	METAL CHIP	10K	5%	1/10W
R922	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R923	1-216-049-00	METAL CHIP	1K	5%	1/10W
R924	1-216-081-00	METAL CHIP	22K	5%	1/10W
R925	1-216-073-00	METAL CHIP	10K	5%	1/10W
R926	1-216-049-00	METAL CHIP	1K	5%	1/10W

< VARIABLE RESISTOR >

RV1	1-241-631-11	RES, ADJ, CARBON 22K
RV2	1-241-630-11	RES, ADJ, CARBON 10K
RV101	1-241-630-11	RES, ADJ, CARBON 10K
RV201	1-241-630-11	RES, ADJ, CARBON 10K

< SWITCH >

S302	1-571-478-11	SWITCH, SLIDE

< TRANSFORMER >

T1	1-404-955-11	TRANSFORMER, IF

< THERMISTOR >

TH1	1-810-032-21	THERMISTOR NTH5G29A221K01TE

< TUNER UNIT >

TU1	1-693-000-21	TUNER UNIT (FM/AM)

< VIBRATOR >

X1	1-579-278-11	VIBLATOR, CERAMIC 456kHz
X301	1-567-713-11	VIBRATOR, CRYSTAL 4.5MHz

****

Ref. No.	Part No.	Description			Remarks
*	1-646-385-11	RELAY BOARD			
		**********			
		< JACK >			
* CNJ904	1-691-558-11	SOCKET, CONNECTOR 12P			
		< CONNECTOR >			
* CNP906	1-506-981-11	PIN, CONNECTOR 10P			
		< SWITCH >			
S701	1-692-366-11	SWITCH, PUSH (1 KEY)			
**********					
*	A-3295-333-A	SW BOARD, COMPLETE			
		**********			
*	3-357-087-01	HOLDER (LCD)			
?	3-377-631-21	SHEET (REFLECTOR)			
*	3-387-815-01	PLATE (LCD), GROUND			
?	3-388-821-01	PLATE (LCD), LIGHT GUIDE			
		< CAPACITOR >			
C701	1-163-007-11	CERAMIC CHIP	680PF	10% 50V	
C702	1-164-005-11	CERAMIC CHIP	0.47uF	25V	
C703	1-164-005-11	CERAMIC CHIP	0.47uF	25V	
C704	1-164-005-11	CERAMIC CHIP	0.47uF	25V	
C705	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
		< CONNECTOR >			
* CNP710	1-691-557-21	PIN, CONNECTOR 12P			
		< DIODE >			
D701	8-719-033-13	DIODE	CL-170Y-CD		
D702	8-719-033-13	DIODE	CL-170Y-CD		
D703	8-719-033-13	DIODE	CL-170Y-CD		
D704	8-719-033-13	DIODE	CL-170Y-CD		
D705	8-719-033-13	DIODE	CL-170Y-CD		
D706	8-719-033-13	DIODE	CL-170Y-CD		
D707	8-719-033-13	DIODE	CL-170Y-CD		
D708	8-719-033-13	DIODE	CL-170Y-CD		
D709	8-719-033-13	DIODE	CL-170Y-CD		
D710	8-719-033-13	DIODE	CL-170Y-CD		
D711	8-719-033-13	DIODE	CL-170Y-CD		
D712	8-719-033-13	DIODE	CL-170Y-CD		
D713	8-719-033-13	DIODE	CL-170Y-CD		
D714	8-719-033-13	DIODE	CL-170Y-CD		
D715	8-719-033-13	DIODE	CL-170Y-CD		
D716	8-719-033-13	DIODE	CL-170Y-CD		
D717	8-719-033-13	DIODE	CL-170Y-CD		
D718	8-719-033-13	DIODE	CL-170Y-CD		
D719	8-719-033-13	DIODE	CL-170Y-CD		
D722	8-719-976-XX	DIODE	DTZ5.1B-TT11		
D723	8-719-977-03	DIODE	DTZ5.6B		
D724	8-719-977-03	DIODE	DTZ5.6B		
D725	8-719-977-03	DIODE	DTZ5.6B		
		< IC >			
IC701	8-759-821-44	IC	LC7582		
		< LCD >			
LC1	1-808-975-51	DISPLAY PANEL, LIQUID CRYSTAL			
		< LAMP >			
LP701	1-517-156-11	LAMP, PILOT			
LP702	1-517-156-11	LAMP, PILOT			
		< RESISTOR >			
R701	1-216-091-00	METAL CHIP	56K	5% 1/10W	
R702	1-216-113-00	METAL CHIP	470K	5% 1/10W	
R703	1-216-099-00	METAL CHIP	120K	5% 1/10W	
R704	1-216-690-11	METAL CHIP	43K	0.5% 1/10W	
R705	1-216-683-11	METAL CHIP	22K	0.5% 1/10W	
R706	1-216-677-11	METAL CHIP	12K	0.5% 1/10W	
R707	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W	
R708	1-216-670-11	METAL CHIP	6.2K	0.5% 1/10W	
R709	1-216-666-11	METAL CHIP	4.3K	0.5% 1/10W	
R710	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W	
R711	1-216-670-11	METAL CHIP	6.2K	0.5% 1/10W	
R712	1-216-666-11	METAL CHIP	4.3K	0.5% 1/10W	
R713	1-216-690-11	METAL CHIP	43K	0.5% 1/10W	
R714	1-216-683-11	METAL CHIP	22K	0.5% 1/10W	
R715	1-216-677-11	METAL CHIP	12K	0.5% 1/10W	
R716	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W	
R717	1-216-670-11	METAL CHIP	6.2K	0.5% 1/10W	
R718	1-216-666-11	METAL CHIP	4.3K	0.5% 1/10W	
R720	1-216-001-00	METAL CHIP	10	5% 1/10W	
R721	1-216-001-00	METAL CHIP	10	5% 1/10W	
R722	1-216-044-00	METAL CHIP	620	5% 1/10W	
R723	1-216-044-00	METAL CHIP	620	5% 1/10W	
R724	1-216-044-00	METAL CHIP	620	5% 1/10W	
R725	1-216-044-00	METAL CHIP	620	5% 1/10W	
R726	1-216-044-00	METAL CHIP	620	5% 1/10W	
R727	1-216-046-00	METAL CHIP	750	5% 1/10W	
R728	1-216-046-00	METAL CHIP	750	5% 1/10W	
R729	1-216-045-00	METAL CHIP	680	5% 1/10W	
R730	1-216-677-11	METAL CHIP	12K	0.5% 1/10W	

SW

Ref. No.	Part No.	Description	Remarks
		< SWITCH >	
S701	1-572-704-21	SWITCH, KEY BOARD (DSPL)	
S702	1-692-037-11	SWITCH, KEY BOARD (M. SCAN)	
S703	1-572-704-21	SWITCH, KEY BOARD (1)	
S704	1-572-704-21	SWITCH, KEY BOARD (2)	
S705	1-572-704-21	SWITCH, KEY BOARD (3)	
S706	1-572-704-21	SWITCH, KEY BOARD (4)	
S707	1-572-704-21	SWITCH, KEY BOARD (5)	
S708	1-572-704-21	SWITCH, KEY BOARD (6)	
S709	1-572-704-21	SWITCH, KEY BOARD (-)	
S710	1-572-704-21	SWITCH, KEY BOARD (+)	
S711	1-572-704-21	SWITCH, KEY BOARD (-)	
S712	1-572-704-21	SWITCH, KEY BOARD (+)	
S713	1-572-704-21	SWITCH, KEY BOARD (+)	
S714	1-692-037-11	SWITCH, KEY BOARD (FM/AM)	
S715	1-692-037-11	SWITCH, KEY BOARD (BTM)	
S716	1-572-704-21	SWITCH, KEY BOARD (SENS LOUD)	
S717	1-572-704-21	SWITCH, KEY BOARD (SEL)	
S718	1-572-704-21	SWITCH, KEY BOARD (-)	
S719	1-692-037-11	SWITCH, KEY BOARD (OFF)	
S720	1-572-704-21	SWITCH, KEY BOARD (MUTE)	

****

MISCELLANEOUS
****

54	1-696-838-21	CORD (WITH CONNECTOR)	
150	1-454-464-12	SOLENOID, PLUNGER	
HP901	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)	
M901	X-3364-496-1	MOTOR ASSY	
S901	1-692-036-11	SWITCH, SLIDE	
S903	1-692-065-11	SWITCH, LEAF	
S904	1-554-790-21	SWITCH, POWER	

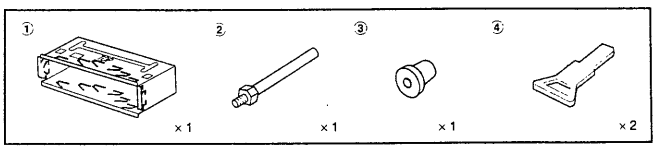
****

ACCESSORIES & PACKING MATERIALS
****

*	3-378-800-01	CUSHION (UPPER)	
*	3-378-801-01	CUSHION (LOWER)	
	3-384-665-01	PLATE (F-S), GROUND	
*	3-386-336-01	INDIVIDUAL CARTON	
	3-756-411-21	MANUAL, INSTRUCTION (ENGLISH/FRENCH) (US, Canadian)	
	3-756-411-61	MANUAL, INSTRUCTION (ENGLISH/SPANISH/CHINESE) (E)	
	3-756-412-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH/FRENCH) (US, Canadian)	
	3-756-412-61	MANUAL, INSTRUCTION, INSTALL (ENGLISH/SPANISH/CHINESE) (E)	
*	4-918-544-11	SPACER (T)	
	X-3364-977-1	CASE ASSY	
	X-3366-405-1	SCREW ASSY (EXP), FITTING	

****

MOUNTING HARDWARE



MOUNTING HARDWARE
****

* 1	X-3366-235-1	FRAME ASSY, FITTING	
2	3-386-828-01	SCREW, FITTING	
3	3-349-410-01	BUSHING	
4	3-388-078-01	KEY	

****
HARDWARE LIST
****

#1	7-685-105-19	SCREW +P 2X8 TYPE2 NON-SLIT	
#2	7-621-775-40	SCREW +PTT 2.6X8 (S)	
#3	7-621-255-25	SCREW +PTT 2X4 (S)	
#4	7-621-770-67	SCREW(+PTT 2.6X8), GROUND POINT	
#5	7-682-548-04	SCREW +PTT 3X8 (S)	
#6	7-621-773-95	SCREW +PTT 2.6X6 (S)	
#7	7-624-102-04	STOP RING 1.5, TYPE -E	
#8	7-624-104-04	STOP RING 2.0, TYPE -E	
#9	7-624-118-01	RING, RETAINING E-2.5	
#10	7-685-135-19	SCREW +P 2.6X10	
#11	7-621-775-08	SCREW +B 2.6X3	
#12	7-621-255-15	SCREW +P 2X3	
#13	7-621-770-XX	SCREW +PTT 2.6X8 (S)	
#14	7-627-553-88	SCREW, PRECISION +P 2X7	
#16	7-621-255-40	SCREW +P 2X6	

9-957-682-11

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Mobile Electronics Group

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XR-5600

SONY®

SERVICE MANUAL

US Model
Canadian Model
E Model

SUPPLEMENT-1

File this supplement with the Service Manual.

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This is the new Electrical Parts List.
For the old Electrical Parts List, refer to the service manual (9-957-682-11) which was published.

Correct your service manual as shown below.

☛ **and – : Indication corrected portion.**

<table>
<tr><th>Page</th><th>INCORRECT</th><th>CORRECT</th></tr>
<tr><td>2, 25</td><td>4-2. IC BLOCK DIAGRAM</td><td>4-2. CIRCUIT BOARDS LOCATION</td></tr>
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<tr><td>17</td><td>Torque Measurement
Measure the torque at a supply voltage of 14.4 V DC.
<table><tr><th></th><th>Torque meter</th><th>Meter reading</th></tr><tr><td>FWD
REW</td><td>CQ-102C
RB</td><td>25 to 55 g • cm
(0.35 to 0.77 oz • inch)</td></tr><tr><td>FF,
REW</td><td>CQ-201B</td><td>50 to 150 g • cm
(0.7 to 2.1 oz • inch)</td></tr><tr><td>Back
tension</td><td>CQ-102C
RB</td><td>1.5 to 4 g • cm or less
(0.02 to 0.05 oz • inch or less)</td></tr></table></td><td>Torque Measurement
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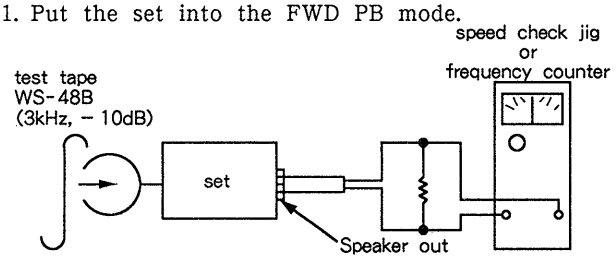
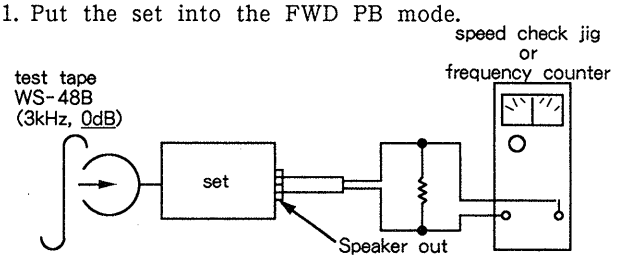
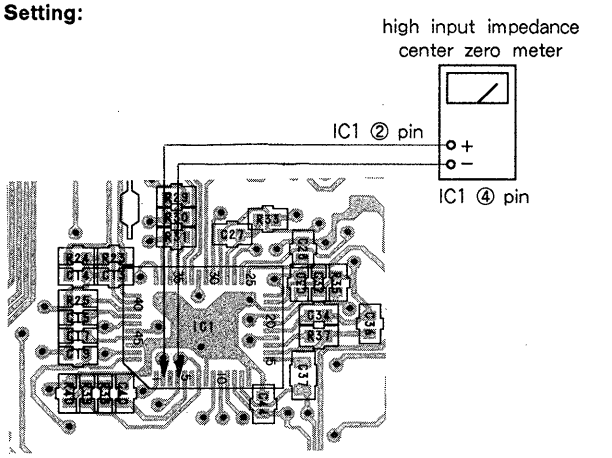
<tr><td>18</td><td>Tape Speed Adjustment
Procedure :
1. Put the set into the FWD PB mode.
  </td><td>Tape Speed Adjustment
Procedure :
1. Put the set into the FWD PB mode.
  </td></tr>
<tr><td>19</td><td>FM f center Adjustment
Setting:
  </td><td>FM f center Adjustment
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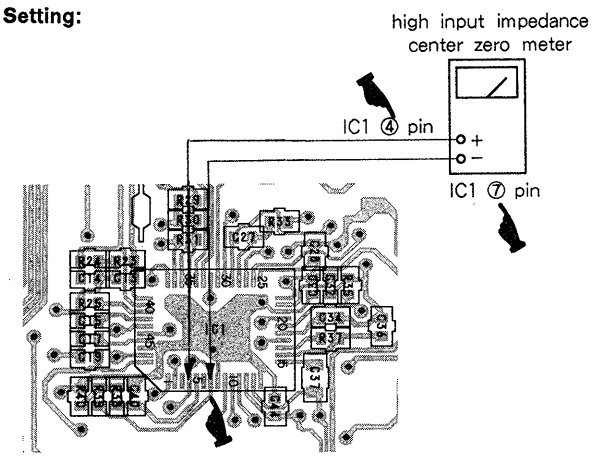
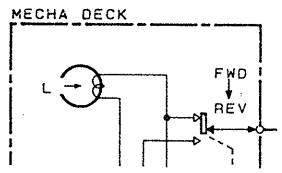
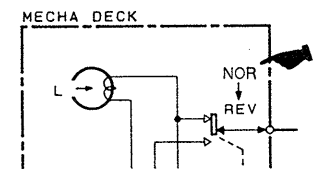
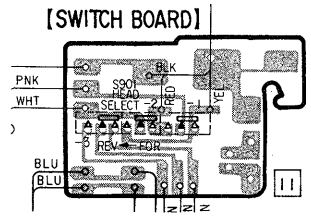
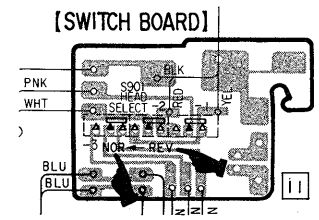
  </td></tr>
<tr><td>22</td><td>  </td><td>  </td></tr>
<tr><td>28</td><td>S903 MUTE-TAPE
SOL901 SOLENOID</td><td>S903 TAPE IN
SOL901 AMS SOL.</td></tr>
<tr><td>29</td><td>S904 POWER→MUTE
  </td><td>S904 FF/REW
  </td></tr>
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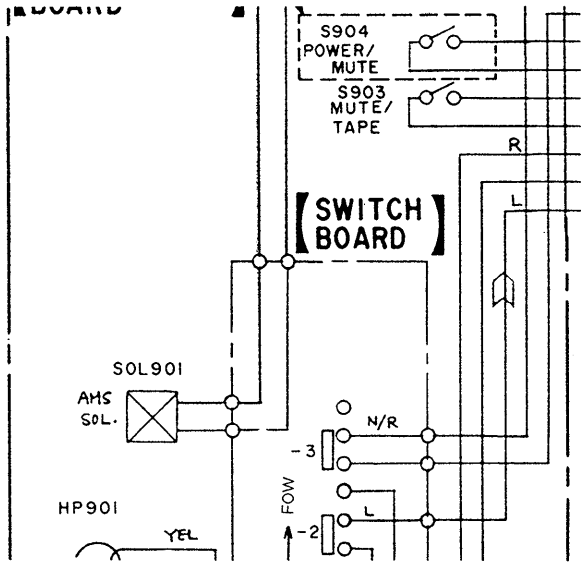
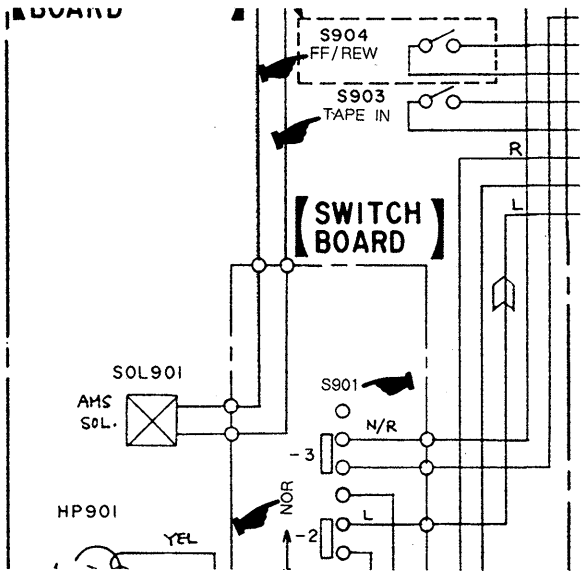
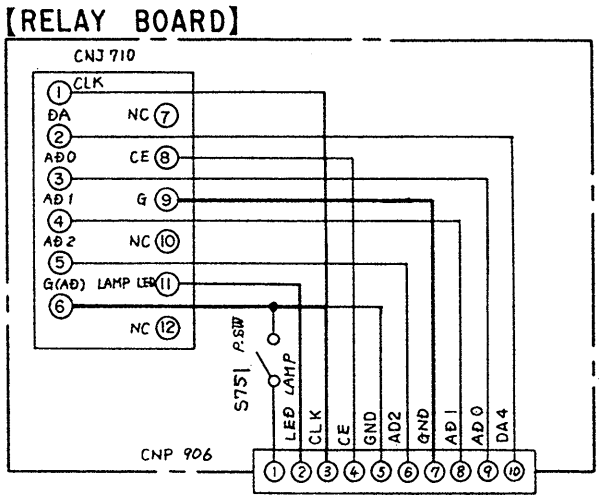
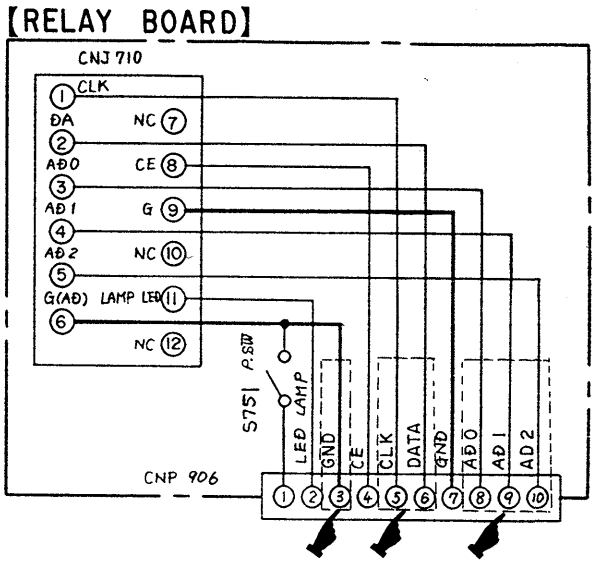
31		
33		
46	2 X-3365-507-2 LOCK ASSY * 5 1-646-385-11 RELAY BOARD 8 3-377-593-21 INSULATOR	2 X-3365-507-3 LOCK ASSY * 5 1-646-385-12 RELAY BOARD ——→ Delete
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56	* 1 X-3366-235-1 FRAME ASSY, FITTING	* 1 X-3366-235-3 FRAME ASSY, FITTING

Supplement your service manual as shown below.

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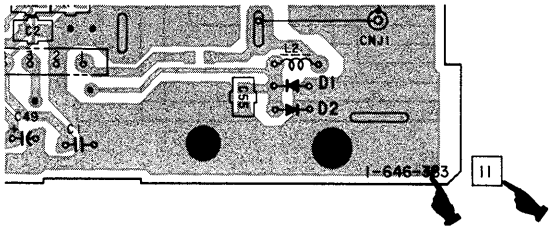
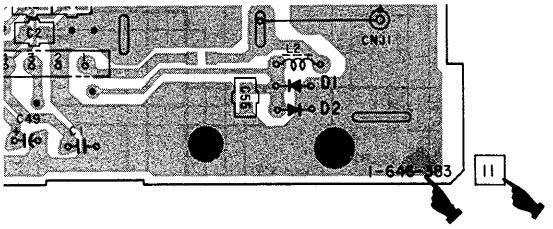
MAIN BOARD CONDUCTOR SIDE

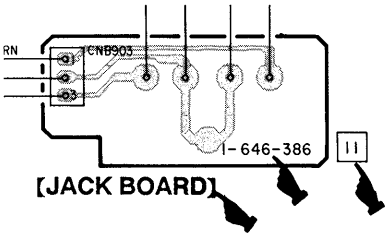


MAIN BOARD COMPONENT SIDE

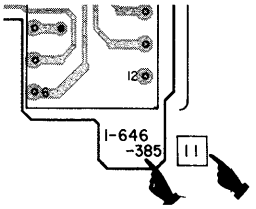


28 | 29

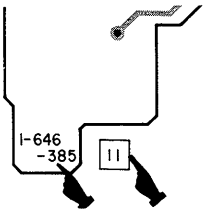
JACK BOARD



RELAY BOARD CONDUCTOR SIDE

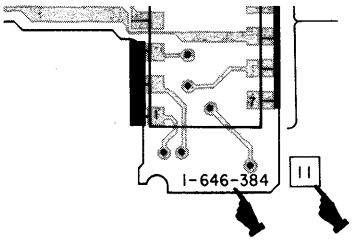


RELAY BOARD COMPONENT SIDE

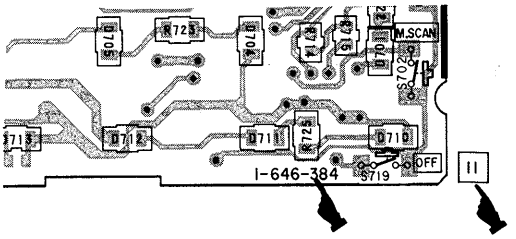


30

SW BOARD CONDUCTOR SIDE



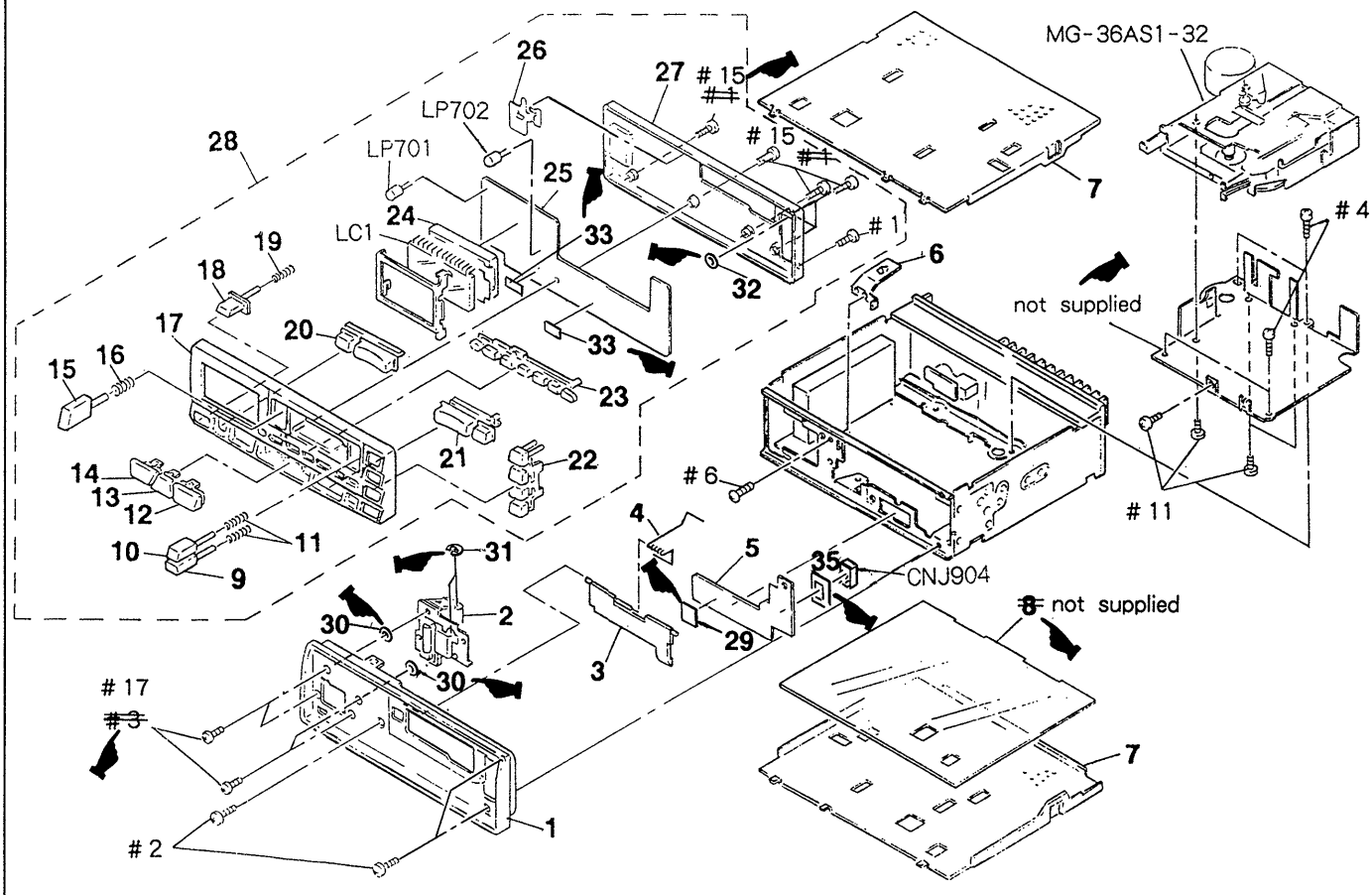
SW BOARD COMPONENT SIDE



☛ : **Additional part, page 46.**

	29	9-911-837-XX SPACER (B)
*	30	9-910-999-34 SPACER
	31	7-624-101-01 STOP RING 1.2 (E TYPE)
*	32	3-360-121-31 SPACER (W)
*	33	4-918-544-11 SPACER (T)
*	35	3-389-489-01 SPACER (CONECTOR)
#	15	7-685-106-19 SCREW +P2x10 TYPE 2 NON-SLIT
#	17	7-621-772-10 SCREW +B2x4

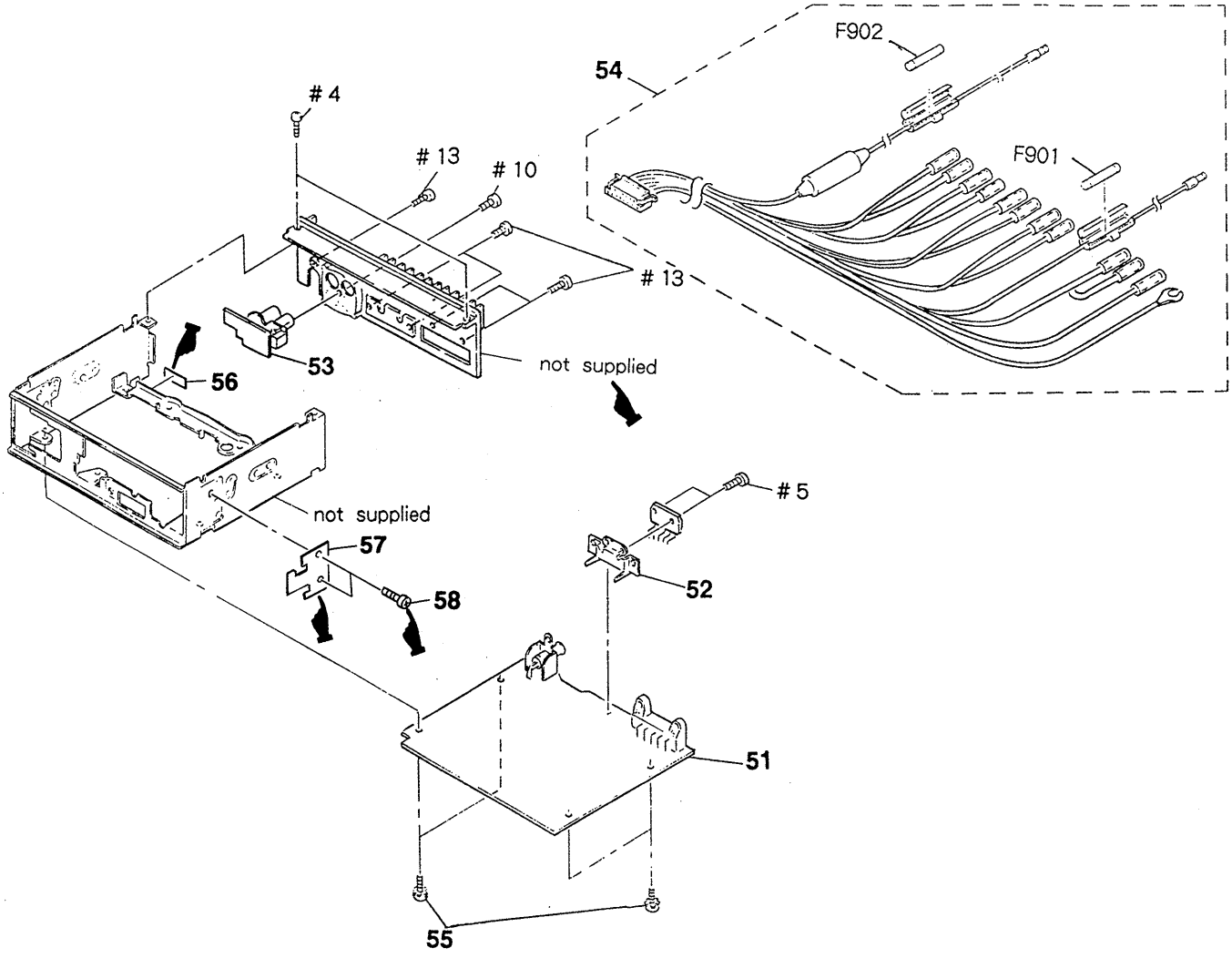
5-1. CHASSIS ASSEMBLY 1



☛ : Additional part, page 47.

* 56 3-564-759-01 SPACER
* 57 3-387-688-01 PLATE (R), LOCK
58 3-329-814-01 SCREW (M 4X6)

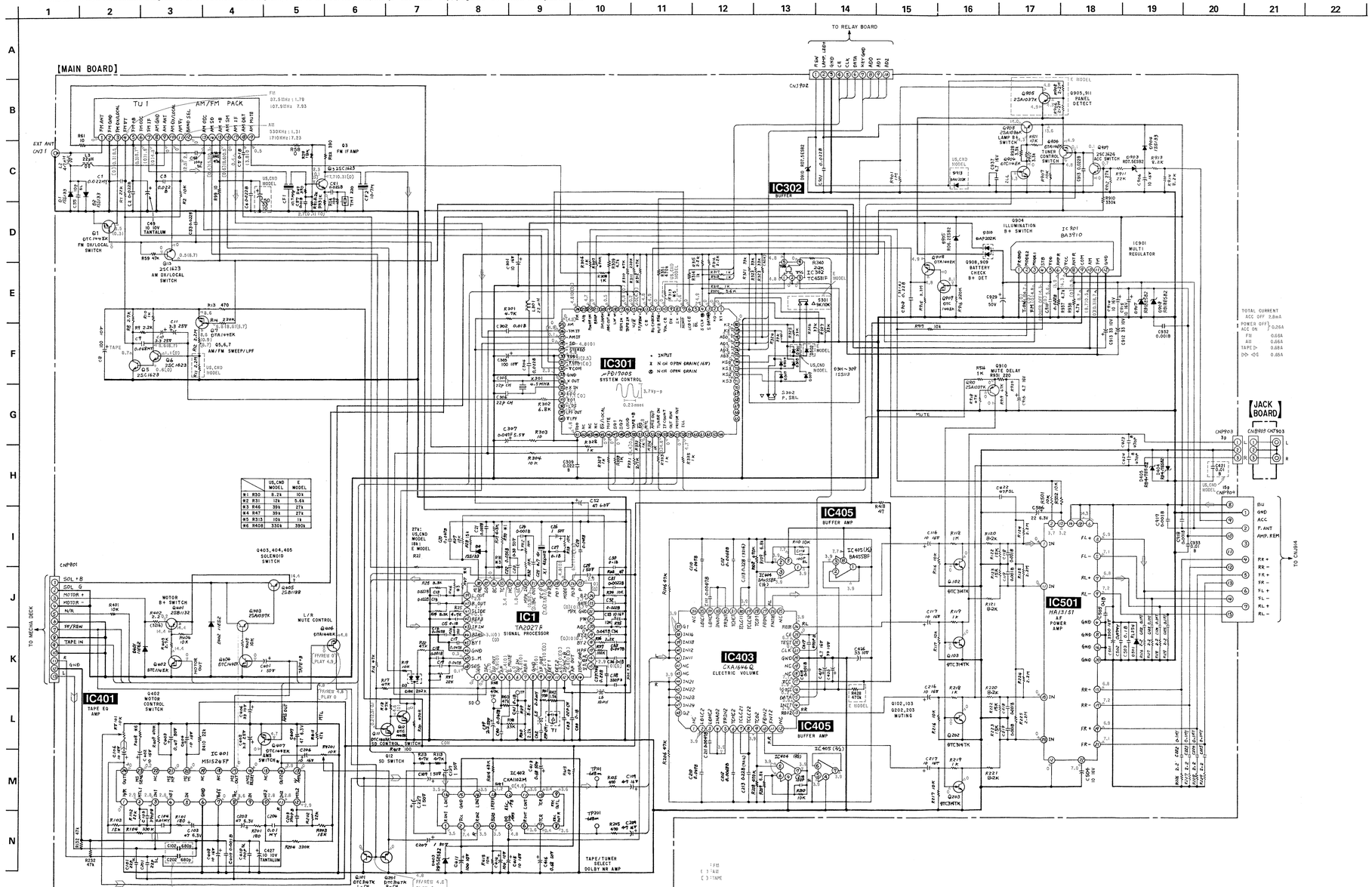
5-2. CHASSIS ASSEMBLY 2



SECTION 1
DIAGRAMS

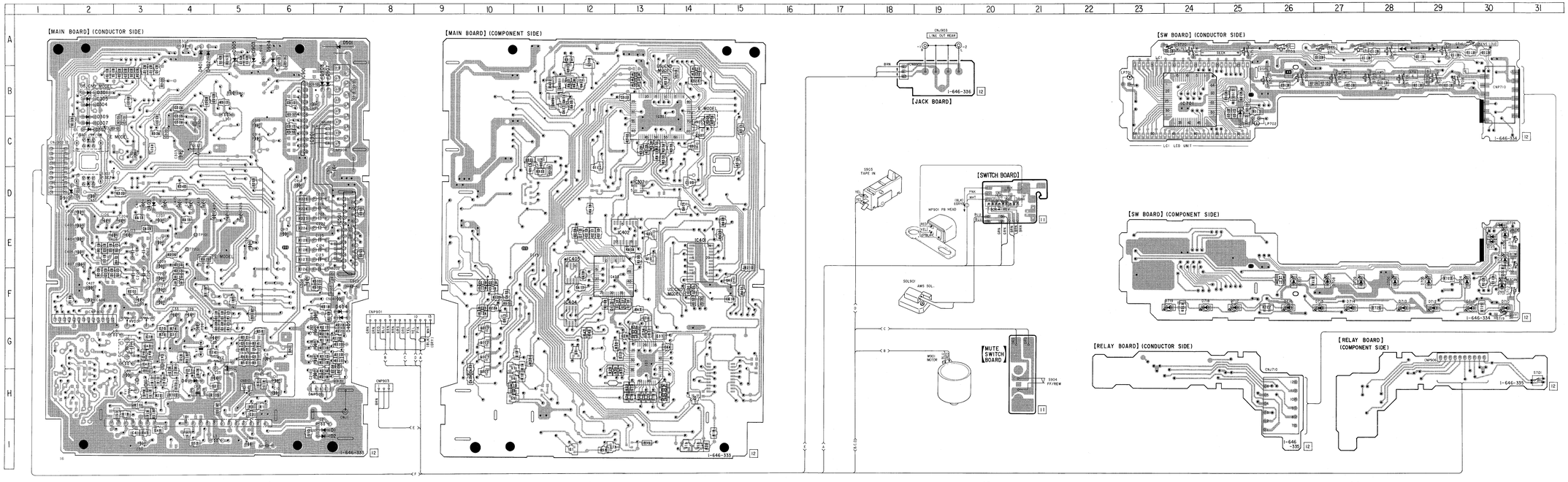
1-1. SCHEMATIC DIAGRAM — MAIN SECTION —

- This is the new Schematic Diagram. For old Schematic Diagram, refer to the service manual (9-957-682-11), page 35-38 which was published.



1-2. PRINTED WIRING BOARD

• This is the new Printed Wiring Board. For old Printed Wiring Board, refer to the service manual (9-957-682-11), page 26-30 which was published.



—11— —12— —13— —14—

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D1	I-7	D714	F-27	Q1	I-12
D2	I-7	D715	F-27	Q3	G-12
D3	H-14	D716	F-26	Q4	I-13
D4	H-4	D717	F-25	Q5	H-10
D301	B-2	D718	F-24	Q6	H-10
D302	C-2	D719	F-24	Q7	H-10
D304	B-2	D722	C-25	Q11	I-14
D305	B-2	D723	E-30	Q12	I-14
D307	C-2	D724	E-30	Q13	I-12
D309	C-2	D725	E-30	Q101	E-13
D310	D-12	D903	A-5	Q102	G-10
D401	B-4	D904	A-6	Q103	G-10
D402	B-4	D905	A-5	Q201	E-13
D403	D-3	D907	B-7	Q202	H-10
D404	F-7	D908	B-7	Q203	G-10
D405	G-7	D910	D-2	Q401	B-11
D501	A-7	D913	D-14	Q402	B-12
D701	F-30			Q403	B-11
D702	E-30	IC1	H-13	Q404	B-11
D703	E-30	IC301	C-13	Q405	B-11
D704	F-30	IC302	D-13	Q406	D-14
D705	F-29	IC401	E-14	Q407	F-15
D706	F-28	IC402	E-13	Q903	D-11
D707	F-26	IC403	F-12	Q904	D-11
D708	F-27	IC404	F-12	Q905	C-14
D709	F-27	IC405	F-12	Q906	C-14
D710	F-30	IC501	E-7	Q907	C-14
D711	F-30	IC701	B-24	Q908	B-12
D712	F-29	IC901	C-8	Q909	B-12
D713	F-28			Q910	G-10

Note on Mounting Diagram :

- ⊶—— : Parts extracted from the component side.
- ○ : Through hole.
- ▬ : Pattern on the side which is seen. (Other pattern is not shown.)
- CND : Canadian Model

SECTION 2
ELECTRICAL PARTS LIST

JACK | **MAIN**

NOTE:

This is the new Electrical Parts List. For the old Electrical Parts List, refer to the service manual (9-957-682-11) which was published.

When indicating parts by reference number, please include the board name.

• CND : Canadian model

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- −XX, −X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL : metal-film resistor
  METAL OXIDE : Metal Oxide-film resistor
  F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example :
  uA... : μA... , uPA... , μPA... , uPB... , μPB... , uPC... , μPC... , uPD..., μPD...
- CAPACITORS :
  uF : μF
- COILS
  uH : μH

Ref. No.	Part No.	Description			Remarks
*	1-646-386-12	JACK BOARD			
		**********			
		< JACK >			
CNJ903	1-573-744-11	JACK, PIN 2P (LINE OUT REAR)			
**********					
*	A-3295-328-A	MAIN BOARD, COMPLETE (US, Canadian)			
		**********			
*	A-3295-370-A	MAIN BOARD, COMPLETE (E)			
		**********			
		< CAPACITOR >			
C1	1-163-157-00	FILM	0.022uF	5%	50V
C2	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C3	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C4	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C5	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C8	1-124-584-00	ELECT	100uF	20%	10V
C9	1-136-175-00	FILM	0.068uF	5%	50V
C10	1-126-162-11	ELECT	3.3uF	20%	50V
C11	1-126-162-11	ELECT	3.3uF	20%	50V
C13	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C14	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C15	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C16	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C17	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C18	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C19	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C20	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C21	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C22	1-164-343-11	CERAMIC CHIP	0.056uF	10%	25V
C23	1-124-252-00	ELECT	0.33uF	20%	50V
C24	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C25	1-126-288-11	ELECT	4.7uF	20%	16V
C26	1-126-301-11	ELECT	1uF	20%	50V
C27	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C28	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C29	1-126-301-11	ELECT	1uF	20%	50V
C30	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C31	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C32	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C33	1-126-157-11	ELECT	10uF	20%	16V
C34	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C35	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C36	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C37	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C38	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C39	1-124-257-00	ELECT	2.2uF	20%	50V
C40	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C41	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C42	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C43	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C44	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C48	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C49	1-131-377-00	TANTALUM	10uF	10%	10V
C50	1-124-229-00	ELECT	33uF	20%	10V (US, CND)
C51	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C52	1-126-154-11	ELECT	47uF	20%	6.3V
C53	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C55	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C57	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C101	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C102	1-104-673-21	MYLAR	680PF	5%	50V (US, CND)

MAIN

Ref. No.	Part No.	Description			Remarks
C103	1-126-154-11	ELECT	47uF	20%	6.3V
C104	1-136-153-00	FILM	0.01uF	5%	50V
C105	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C106	1-126-157-11	ELECT	10uF	20%	16V
C107	1-126-301-11	ELECT	1uF	20%	50V
C109	1-126-288-11	ELECT	4.7uF	20%	16V
C110	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C111	1-163-017-00	CERAMIC CHIP	0.0047uF	10%	50V
C112	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C113	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C114	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C116	1-126-157-11	ELECT	10uF	20%	16V
C117	1-126-157-11	ELECT	10uF	20%	16V
C118	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C119	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C122	1-136-165-00	FILM	0.1uF	5%	50V
C123	1-136-165-00	FILM	0.1uF	5%	50V
C124	1-136-165-00	FILM	0.1uF	5%	50V
C125	1-136-165-00	FILM	0.1uF	5%	50V
C127	1-126-301-11	ELECT	1uF	20%	50V
C201	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C202	1-104-673-21	MYLER	680PF	5%	50V (US, CND)
C203	1-126-154-11	ELECT	47uF	20%	6.3V
C204	1-136-153-00	FILM	0.01uF	5%	50V
C205	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C206	1-126-157-11	ELECT	10uF	20%	16V
C207	1-126-301-11	ELECT	1uF	20%	50V
C209	1-126-288-11	ELECT	4.7uF	20%	16V
C210	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C211	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C212	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C213	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C214	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C216	1-126-157-11	ELECT	10uF	20%	16V
C217	1-126-157-11	ELECT	10uF	20%	16V
C218	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C219	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C222	1-136-165-00	FILM	0.1uF	5%	50V
C223	1-136-165-00	FILM	0.1uF	5%	50V
C224	1-136-165-00	FILM	0.1uF	5%	50V
C225	1-136-165-00	FILM	0.1uF	5%	50V
C227	1-126-301-11	ELECT	1uF	20%	50V
C301	1-126-157-11	ELECT	10uF	20%	16V
C302	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C303	1-124-584-00	ELECT	100uF	20%	10V
C304	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V

Ref. No.	Part No.	Description			Remarks
C305	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C306	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C307	1-125-701-11	CAP, DOUBLE LAYER	0.047F		
C309	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C401	1-126-301-11	ELECT	1uF	20%	50V
C402	1-126-157-11	ELECT	10uF	20%	16V
C403	1-126-159-11	ELECT	0.47uF	20%	50V
C404	1-126-157-11	ELECT	10uF	20%	16V
C405	1-126-162-11	ELECT	3.3uF	20%	50V
C406	1-124-229-00	ELECT	33uF	20%	10V
C407	1-126-154-11	ELECT	47uF	20%	6.3V
C408	1-126-157-11	ELECT	10uF	20%	16V
C409	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C410	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C411	1-124-584-00	ELECT	100uF	20%	10V
C413	1-124-254-00	ELECT	0.68uF	20%	50V
C414	1-124-584-00	ELECT	100uF	20%	10V
C415	1-126-157-11	ELECT	10uF	20%	16V
C416	1-124-254-00	ELECT	0.68uF	20%	50V
C417	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C418	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C419	1-126-288-11	ELECT	4.7uF	20%	16V
C420	1-124-229-00	ELECT	33uF	20%	10V
C421	1-164-232-11	ELECT	0.01uF	10%	50V (US, CND)
C422	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C423	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C424	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C426	1-124-229-00	ELECT	33uF	20%	10V
C427	1-131-377-00	TANTALUM	10uF	10%	10V
C501	1-126-936-11	ELECT	3300uF	20%	16V
C502	1-136-173-00	FILM	0.47uF	5%	50V
C503	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C504	1-126-157-11	ELECT	10uF	20%	16V
C505	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C506	1-126-153-11	ELECT	22uF	20%	6.3V
C901	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C906	1-126-157-11	ELECT	10uF	20%	16V
C908	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C910	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C912	1-124-229-00	ELECT	33uF	20%	10V
C913	1-124-229-00	ELECT	33uF	20%	10V
C914	1-131-359-41	TANTALUM	10uF	10%	25V
C915	1-126-157-11	ELECT	10uF	20%	16V
C916	1-126-288-11	ELECT	4.7uF	20%	16V
C917	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V

MAIN

Ref. No.	Part No.	Description			Remarks
C918	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V	
C929	1-126-301-11	ELECT	1uF	20% 50V	
C931	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C932	1-163-009-11	CERAMIC CHIP	1000PF	10% 50V	
C933	1-163-009-11	CERAMIC CHIP	1000PF	10% 50V	
C937	1-135-155-21	TANTALUM CHIP	4.7uF	10% 16V	
		< FILTER >			
CF1	1-579-568-11	FILTER, CERAMIC			
CF2	1-579-568-11	FILTER, CERAMIC			
		< JACK >			
CNJ1	1-691-512-11	SOCKET, CONNECTOR (ANT)			
* CNJ902	1-563-464-11	SOCKET, CONNECTOR 10P			
		< CONNECTOR >			
* CNP901	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P			
* CNP903	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P			
* CNP904	1-750-064-11	PLUG, CONNECTOR 15P			
		< DIODE >			
D1	8-719-911-19	DIODE	1SS119		
D2	8-719-911-19	DIODE	1SS119		
D3	8-719-400-18	DIODE	MA152WK		
D4	8-719-911-19	DIODE	1SS119		
D301	8-719-911-19	DIODE	1SS119 (US, CND)		
D302	8-719-911-19	DIODE	1SS119 (E)		
D304	8-719-911-19	DIODE	1SS119		
D305	8-719-911-19	DIODE	1SS119		
D307	8-719-911-19	DIODE	1SS119		
D309	8-719-911-19	DIODE	1SS119		
D310	8-719-914-44	DIODE	DAP202K		
D401	8-719-200-82	DIODE	11ES2		
D402	8-719-200-82	DIODE	11ES2		
D403	8-719-921-63	DIODE	MTZJ-7.5B		
D404	8-719-109-81	DIODE	RD4.7ES-B2		
D405	8-719-109-81	DIODE	RD4.7ES-B2		
D501	8-719-989-62	DIODE	RL254		
D903	8-719-110-03	DIODE	RD7.5ES-B2		
D904	8-719-911-19	DIODE	1SS119		
D905	8-719-109-93	DIODE	RD6.2ES		
D907	8-719-110-49	DIODE	RD18ES-B2		
D908	8-719-110-49	DIODE	RD18ES-B2		
D910	8-719-110-03	DIODE	RD7.5ES-B2		
D913	8-719-400-18	DIODE	MA152WK		

Ref. No.	Part No.	Description			Remarks
		< IC >			
IC1	8-759-090-30	IC	TA2027F		
IC301	8-759-194-57	IC	uPD17005GF673-3B9		
IC302	8-759-209-97	IC	TC4S81F		
IC401	8-759-076-00	IC	M51524FP		
IC402	8-752-055-47	IC	CXA1102M		
IC403	8-752-063-44	IC	CXA1646Q		
IC404	8-759-909-71	IC	BA4558F		
IC405	8-759-909-71	IC	BA4558F		
IC501	8-759-160-00	IC	HA13151		
IC901	8-759-182-74	IC	BA3910B-V1		
		< JUMPER RESISTOR >			
JR102	1-216-296-00	METAL CHIP	0	5% 1/8W	
JR103	1-216-296-00	METAL CHIP	0	5% 1/8W	
JR105	1-216-296-00	METAL CHIP	0	5% 1/8W	
JR106	1-216-296-00	METAL CHIP	0	5% 1/8W	
JR107	1-216-296-00	METAL CHIP	0	5% 1/8W	
JR110	1-216-295-00	METAL CHIP	0	5% 1/10W	
JR111	1-216-295-00	METAL CHIP	0	5% 1/10W	
JR112	1-216-295-00	METAL CHIP	0	5% 1/10W	
JR113	1-216-295-00	METAL CHIP	0	5% 1/10W	
JR116	1-216-295-00	METAL CHIP	0	5% 1/10W	
JR120	1-216-295-00	METAL CHIP	0	5% 1/10W	
JR121	1-216-296-00	METAL CHIP	0	5% 1/8W	
JR201	1-216-295-00	METAL CHIP	0	5% 1/10W	
JR210	1-216-296-00	METAL CHIP	0	5% 1/8W	
		< COIL >			
L2	1-410-969-11	INDUCTOR	4.7uH		
L3	1-410-973-11	INDUCTOR	22uH		
L5	1-410-967-11	INDUCTOR	2.2uH		
L6	1-410-971-11	INDUCTOR	10uH		
L301	1-410-973-11	INDUCTOR	22uH		
		< TRANSISTOR >			
Q1	8-729-901-01	TRANSISTOR	DTC144EK		
Q3	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q5	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q6	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q7	8-729-901-06	TRANSISTOR	DTA144EK		
Q11	8-729-901-01	TRANSISTOR	DTC144EK		
Q12	8-729-901-01	TRANSISTOR	DTC144EK		
Q13	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q101	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q102	8-729-920-21	TRANSISTOR	DTC314TKH04		

MAIN

Ref. No.	Part No.	Description	Remarks
Q103	8-729-920-21	TRANSISTOR DTC314TKH04	
Q201	8-729-920-21	TRANSISTOR DTC314TKH04	
Q202	8-729-920-21	TRANSISTOR DTC314TKH04	
Q203	8-729-920-21	TRANSISTOR DTC314TKH04	
Q401	8-729-106-60	TRANSISTOR 2SB1115A	
Q402	8-729-900-53	TRANSISTOR DTC114EK	
Q403	8-729-216-22	TRANSISTOR 2SA1162-G	
Q404	8-729-901-01	TRANSISTOR DTC144EK	
Q405	8-729-807-33	TRANSISTOR 2SB1123	
Q406	8-729-901-06	TRANSISTOR DTA144EK	
Q407	8-729-901-01	TRANSISTOR DTC144EK	
Q903	8-729-901-98	TRANSISTOR 2SA1036K-R	
Q904	8-729-900-53	TRANSISTOR DTC114EK	
Q905	8-729-216-22	TRANSISTOR 2SA1162-G (E)	
Q906	8-729-901-04	TRANSISTOR DTA114EK	
Q907	8-729-107-43	TRANSISTOR 2SC3624-L18	
Q908	8-729-901-06	TRANSISTOR DTA144EK	
Q909	8-729-901-01	TRANSISTOR DTC144EK	
Q910	8-729-216-22	TRANSISTOR 2SA1162-G	
		< RESISTOR >	
R1	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R2	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R8	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R9	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R10	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R11	1-216-129-00	METAL CHIP 2.2M 5% 1/10W	(US, CND)
R12	1-216-129-00	METAL CHIP 2.2M 5% 1/10W	
R13	1-216-041-00	METAL CHIP 470 5% 1/10W	
R14	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R16	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R17	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R18	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R19	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R20	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R21	1-216-083-00	METAL CHIP 27K 5% 1/10W	(US, CND)
R21	1-216-079-00	METAL CHIP 18K 5% 1/10W (E)	
R22	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R23	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R24	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R25	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R26	1-216-039-00	METAL CHIP 390 5% 1/10W	
R27	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R28	1-216-077-00	METAL CHIP 15K 5% 1/10W	

Ref. No.	Part No.	Description	Remarks
R29	1-216-064-00	METAL CHIP 4.3K 5% 1/10W	
R30	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	(US, CND)
R30	1-216-073-00	METAL CHIP 10K 5% 1/10W (E)	
R31	1-216-067-00	METAL CHIP 5.6K 5% 1/10W (E)	
R31	1-216-075-00	METAL CHIP 12K 5% 1/10W	(US, CND)
R32	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R33	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R34	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R35	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R36	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R37	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R38	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R39	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R40	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R41	1-216-046-00	METAL CHIP 750 5% 1/10W	
R42	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R43	1-216-017-00	METAL CHIP 47 5% 1/10W	
R45	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R46	1-216-083-00	METAL CHIP 27K 5% 1/10W (E)	
R46	1-216-689-11	METAL CHIP 39K 5% 1/10W	(US, CND)
R47	1-216-083-00	METAL CHIP 27K 5% 1/10W (E)	
R47	1-216-689-11	METAL CHIP 39K 5% 1/10W	(US, CND)
R48	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R49	1-216-039-00	METAL CHIP 390 5% 1/10W	
R50	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R51	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R52	1-216-039-00	METAL CHIP 390 5% 1/10W	
R53	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R54	1-216-025-00	METAL CHIP 100 5% 1/10W	
R58	1-216-295-00	METAL CHIP 0 5% 1/10W	
R59	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R60	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R61	1-216-001-00	METAL CHIP 10 5% 1/10W	
R99	1-249-393-11	CARBON CHIP 10 5% 1/4W	
R101	1-216-031-00	METAL CHIP 180 5% 1/10W	
R102	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R103	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R104	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R105	1-216-041-00	METAL CHIP 470 5% 1/10W	
R106	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R108	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R109	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	

Ref. No.	Part No.	Description			Remarks
R110	1-216-073-00	METAL CHIP	10K	5%	1/10W
R113	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R116	1-216-073-00	METAL CHIP	10K	5%	1/10W
R117	1-216-073-00	METAL CHIP	10K	5%	1/10W
R118	1-216-049-00	METAL CHIP	1K	5%	1/10W
R119	1-216-049-00	METAL CHIP	1K	5%	1/10W
R120	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R121	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R122	1-216-077-00	METAL CHIP	15K	5%	1/10W
R123	1-216-077-00	METAL CHIP	15K	5%	1/10W
R124	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R125	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R126	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R127	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R128	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R129	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R132	1-216-089-00	METAL CHIP	47K	5%	1/10W
R201	1-216-031-00	METAL CHIP	180	5%	1/10W
R202	1-216-081-00	METAL CHIP	22K	5%	1/10W
R203	1-216-077-00	METAL CHIP	15K	5%	1/10W
R204	1-216-109-00	METAL CHIP	330K	5%	1/10W
R205	1-216-041-00	METAL CHIP	470	5%	1/10W
R206	1-216-089-00	METAL CHIP	47K	5%	1/10W
R208	1-216-113-00	METAL CHIP	470K	5%	1/10W
R209	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R210	1-216-073-00	METAL CHIP	10K	5%	1/10W
R213	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R216	1-216-073-00	METAL CHIP	10K	5%	1/10W
R217	1-216-073-00	METAL CHIP	10K	5%	1/10W
R218	1-216-049-00	METAL CHIP	1K	5%	1/10W
R219	1-216-049-00	METAL CHIP	1K	5%	1/10W
R220	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R221	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R222	1-216-077-00	METAL CHIP	15K	5%	1/10W
R223	1-216-077-00	METAL CHIP	15K	5%	1/10W
R224	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R225	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R226	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R227	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R228	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R229	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R232	1-216-089-00	METAL CHIP	47K	5%	1/10W
R301	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R302	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R303	1-216-001-00	METAL CHIP	10	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R304	1-216-073-00	METAL CHIP	10K	5%	1/10W
R306	1-216-049-00	METAL CHIP	1K	5%	1/10W
R307	1-216-113-00	METAL CHIP	470K	5%	1/10W
R308	1-216-049-00	METAL CHIP	1K	5%	1/10W
R309	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R310	1-216-089-00	METAL CHIP	47K	5%	1/10W
R311	1-216-105-00	METAL CHIP	220K	5%	1/10W
R312	1-216-089-00	METAL CHIP	47K	5%	1/10W
R313	1-216-049-00	METAL CHIP	1K	5%	1/10W
R314	1-216-049-00	METAL CHIP	1K	5%	1/10W
R315	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R316	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R317	1-216-049-00	METAL CHIP	1K	5%	1/10W
R318	1-216-049-00	METAL CHIP	1K	5%	1/10W
R319	1-216-049-00	METAL CHIP	1K	5%	1/10W
R320	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R321	1-216-085-00	METAL CHIP	33K	5%	1/10W
R322	1-216-085-00	METAL CHIP	33K	5%	1/10W
R323	1-216-234-00	METAL GLAZE	33K	5%	1/8W
R324	1-216-085-00	METAL CHIP	33K	5%	1/10W
R325	1-216-085-00	METAL CHIP	33K	5%	1/10W
R326	1-216-085-00	METAL CHIP	33K	5%	1/10W
R327	1-216-085-00	METAL CHIP	33K	5%	1/10W
R328	1-216-049-00	METAL CHIP	1K	5%	1/10W
R329	1-216-049-00	METAL CHIP	1K	5%	1/10W
R331	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R332	1-216-049-00	METAL CHIP	1K	5%	1/10W
R333	1-216-049-00	METAL CHIP	1K	5%	1/10W
R335	1-216-049-00	METAL CHIP	1K	5%	1/10W
R336	1-216-049-00	METAL CHIP	1K	5%	1/10W
R338	1-216-049-00	METAL CHIP	1K	5%	1/10W
R340	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R351	1-216-113-00	METAL CHIP	470K	5%	1/10W
R401	1-216-073-00	METAL CHIP	10K	5%	1/10W
R402	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R403	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R404	1-216-073-00	METAL CHIP	10K	5%	1/10W
R405	1-216-073-00	METAL CHIP	10K	5%	1/10W
R408	1-216-037-00	METAL CHIP	330	5%	1/10W (US, CND)
R408	1-216-039-00	METAL CHIP	390	5%	1/10W (E)
R409	1-216-113-00	METAL CHIP	470K	5%	1/10W
R410	1-216-081-00	METAL CHIP	22K	5%	1/10W
R411	1-216-089-00	METAL CHIP	47K	5%	1/10W
R412	1-216-025-00	METAL CHIP	100	5%	1/10W
R413	1-216-021-00	METAL CHIP	68	5%	1/10W

MAIN | RELAY | SW

Ref. No.	Part No.	Description			Remarks
R414	1-216-088-00	METAL CHIP	43K	5%	1/10W
R415	1-216-073-00	METAL CHIP	10K	5%	1/10W
R418	1-216-017-00	METAL CHIP	47	5%	1/10W
R428	1-216-113-00	METAL CHIP	470K	5%	1/10W (E)
R501	1-216-073-00	METAL CHIP	10K	5%	1/10W
R502	1-216-073-00	METAL CHIP	10K	5%	1/10W
R901	1-216-121-00	METAL CHIP	1M	5%	1/10W
R906	1-216-129-00	METAL CHIP	2.2M	5%	1/10W (E)
R908	1-216-129-00	METAL CHIP	2.2M	5%	1/10W (E)
R910	1-216-109-00	METAL CHIP	330K	5%	1/10W
R911	1-216-081-00	METAL CHIP	22K	5%	1/10W
R912	1-216-083-00	METAL CHIP	27K	5%	1/10W
R913	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R914	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R915	1-216-133-00	METAL CHIP	3.3M	5%	1/10W
R916	1-216-105-00	METAL CHIP	220K	5%	1/10W
R917	1-216-073-00	METAL CHIP	10K	5%	1/10W
R918	1-216-089-00	METAL CHIP	47K	5%	1/10W
R919	1-216-089-00	METAL CHIP	47K	5%	1/10W
R921	1-216-073-00	METAL CHIP	10K	5%	1/10W
R922	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R926	1-216-049-00	METAL CHIP	1K	5%	1/10W
R928	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R931	1-216-033-00	METAL CHIP	220	5%	1/10W
R937	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R938	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
		< VARIABLE RESISTOR >			
RV1	1-241-631-11	RES, ADJ, CARBON 22K			
RV2	1-241-630-11	RES, ADJ, CARBON 10K			
RV101	1-241-630-11	RES, ADJ, CARBON 10K			
RV201	1-241-630-11	RES, ADJ, CARBON 10K			
		< SWITCH >			
S301	1-571-478-11	SWITCH, SLIDE (9K/10K) (E)			
S302	1-571-478-11	SWITCH, SLIDE (P SET)			
		< TRANSFORMER >			
T1	1-404-955-11	TRANSFORMER, IF			
		< THERMISTOR >			
TH1	1-810-032-21	THERMISTOR NTH5G29A221K01TE			
		< TUNER UNIT >			
TU1	1-693-000-21	TUNER UNIT (FM/AM)			

Ref. No.	Part No.	Description			Remarks
		< VIBRATOR >			
X1	1-579-278-11	VIBLATOR, CERAMIC 456kHz			
X301	1-567-713-11	VIBRATOR, CRYSTAL 4.5MHz			
**********					
*	1-646-385-12	RELAY BOARD			
		**********			
		< JACK >			
* CNJ904	1-691-558-11	SOCKET, CONNECTOR 12P			
		< CONNECTOR >			
* CNP906	1-506-981-11	PIN, CONNECTOR 10P			
		< SWITCH >			
S701	1-692-366-11	SWITCH, PUSH (1 KEY)			
**********					
*	A-3295-333-A	SW BOARD, COMPLETE			
		**********			
*	3-357-087-01	HOLDER (LCD)			
*	3-377-631-21	SHEET (REFLECTOR)			
*	3-387-815-01	PLATE (LCD), GROUND			
		< CAPACITOR >			
C701	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C702	1-162-637-11	CERAMIC CHIP	0.47uF		16V
C703	1-162-637-11	CERAMIC CHIP	0.47uF		16V
C704	1-162-637-11	CERAMIC CHIP	0.47uF		16V
C705	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
		< CONNECTOR >			
* CNP710	1-691-557-21	PIN, CONNECTOR 12P			
		< DIODE >			
D701	8-719-975-84	LED	AY1101W		
D702	8-719-975-84	LED	AY1101W		
D703	8-719-975-84	LED	AY1101W		
D704	8-719-975-84	LED	AY1101W		
D705	8-719-975-84	LED	AY1101W		

Ref. No.	Part No.	Description	Remarks
D706	8-719-975-84	LED AY1101W	
D707	8-719-975-84	LED AY1101W	
D708	8-719-975-84	LED AY1101W	
D709	8-719-975-84	LED AY1101W	
D710	8-719-975-84	LED AY1101W	
D711	8-719-975-84	LED AY1101W	
D712	8-719-975-84	LED AY1101W	
D713	8-719-975-84	LED AY1101W	
D714	8-719-975-84	LED AY1101W	
D715	8-719-975-84	LED AY1101W	
D716	8-719-975-84	LED AY1101W	
D717	8-719-975-84	LED AY1101W	
D718	8-719-975-84	LED AY1101W	
D719	8-719-975-84	LED AY1101W	
D722	8-719-976-99	DIODE DTZ5.1B	
D723	8-719-977-03	DIODE DTZ5.6B	
D724	8-719-977-03	DIODE DTZ5.6B	
D725	8-719-977-03	DIODE DTZ5.6B	
		< IC >	
IC701	8-759-821-44	IC LC7582	
		< LCD >	
LC1	1-808-975-51	DISPLAY PANEL, LIQUID CRYSTAL	
		< LAMP >	
LP701	1-517-156-11	LAMP, PILOT	
LP702	1-517-156-11	LAMP, PILOT	
		< RESISTOR >	
R701	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R702	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R703	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R704	1-216-690-11	METAL CHIP 43K 0.5% 1/10W	
R705	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R706	1-216-677-11	METAL CHIP 12K 0.5% 1/10W	
R707	1-216-673-11	METAL CHIP 8.2K 0.5% 1/10W	
R708	1-216-670-11	METAL CHIP 6.2K 0.5% 1/10W	
R709	1-216-666-11	METAL CHIP 4.3K 0.5% 1/10W	
R710	1-216-673-11	METAL CHIP 8.2K 0.5% 1/10W	
R711	1-216-670-11	METAL CHIP 6.2K 0.5% 1/10W	
R712	1-216-666-11	METAL CHIP 4.3K 0.5% 1/10W	
R713	1-216-690-11	METAL CHIP 43K 0.5% 1/10W	
R714	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R715	1-216-677-11	METAL CHIP 12K 0.5% 1/10W	

Ref. No.	Part No.	Description	Remarks
R716	1-216-673-11	METAL CHIP 8.2K 0.5% 1/10W	
R717	1-216-670-11	METAL CHIP 6.2K 0.5% 1/10W	
R718	1-216-666-11	METAL CHIP 4.3K 0.5% 1/10W	
R720	1-216-011-00	METAL CHIP 27 5% 1/10W	
R721	1-216-011-00	METAL CHIP 27 5% 1/10W	
R722	1-216-193-00	METAL CHIP 620 5% 1/8W	
R723	1-216-193-00	METAL CHIP 620 5% 1/8W	
R724	1-216-193-00	METAL CHIP 620 5% 1/8W	
R725	1-216-193-00	METAL CHIP 620 5% 1/8W	
R726	1-216-193-00	METAL CHIP 620 5% 1/8W	
R727	1-216-195-00	METAL CHIP 750 5% 1/8W	
R728	1-216-195-00	METAL CHIP 750 5% 1/8W	
R729	1-216-045-00	METAL CHIP 680 5% 1/10W	
R730	1-216-677-11	METAL CHIP 12K 0.5% 1/10W	
		< SWITCH >	
S701	1-572-704-21	SWITCH, KEY BOARD (DSPL)	
S702	1-692-037-31	SWITCH, KEY BOARD (M.SCAN)	
S703	1-572-704-21	SWITCH, KEY BOARD (□□1)	
S704	1-572-704-21	SWITCH, KEY BOARD (MTL2)	
S705	1-572-704-21	SWITCH, KEY BOARD (AMS3)	
S706	1-572-704-21	SWITCH, KEY BOARD (ATA4)	
S707	1-572-704-21	SWITCH, KEY BOARD (5)	
S708	1-572-704-21	SWITCH, KEY BOARD (6)	
S709	1-572-704-21	SWITCH, KEY BOARD (LEVEL-)	
S710	1-572-704-21	SWITCH, KEY BOARD (LEVEL+)	
S711	1-572-704-21	SWITCH, KEY BOARD (MANU-)	
S712	1-572-704-21	SWITCH, KEY BOARD (MANU+)	
S713	1-572-704-21	SWITCH, KEY BOARD (SEEK+)	
S714	1-692-037-31	SWITCH, KEY BOARD (FM/AM)	
S715	1-692-037-31	SWITCH, KEY BOARD (BTM)	
S716	1-572-704-21	SWITCH, KEY BOARD (SENS LOUD)	
S717	1-572-704-21	SWITCH, KEY BOARD (SEL)	
S718	1-572-704-21	SWITCH, KEY BOARD (-)	
S719	1-692-037-31	SWITCH, KEY BOARD (OFF)	
S720	1-572-704-21	SWITCH, KEY BOARD (MUTE)	

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Ref. No.	Part No.	Description	Remarks
		MISCELLANEOUS	
		**********	
54	1-696-838-21	CORD (WITH CONNECTOR)	
150	1-454-464-12	SOLENOID, PLUNGER	
HP901	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)	
M901	X-3364-496-1	MOTOR ASSY	
S901	1-692-036-11	SWITCH, SLIDE (REV/NOR)	
S903	1-554-790-21	SWITCH, POWER (TAPE IN)	
S904	1-692-065-11	SWITCH, LEAF (FF/REW)	

****

ACCESSORIES & PACKING MATERIALS

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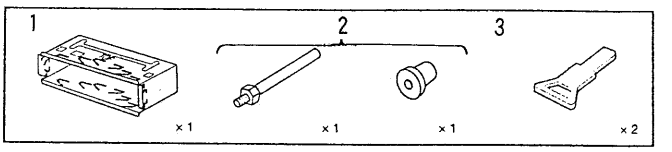
*	3-378-800-01	CUSHION (UPPER)	
*	3-378-801-01	CUSHION (LOWER)	
	3-384-665-01	PLATE (F-S), GROUND	
*	3-386-336-01	INDIVIDUAL CARTON	
	3-756-411-21	MANUAL, INSTRUCTION (ENGLISH/FRENCH) (US, Canadian)	
	3-756-411-61	MANUAL, INSTRUCTION (ENGLISH/SPANISH/CHINESE) (E)	
	3-756-412-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH/FRENCH) (US, Canadian)	
	3-756-412-61	MANUAL, INSTRUCTION, INSTALL (ENGLISH/SPANISH/CHINESE) (E)	
*	4-918-544-11	SPACER (T)	
	X-3364-977-1	CASE ASSY	
	3-388-078-01	KEY	
	X-3366-405-1	SCREW ASSY (EXP), FITTING	

****

MOUNTING HARDWARE



MOUNTING HARDWARE

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* 1	X-3366-235-3	FRAME ASSY, FITTING	
2	X 3366-405-1	SCREW ASSY (EXP), FITTING	
3	3-388-078-01	KEY	

****

HARDWARE LIST

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#1	7-685-105-19	SCREW +P 2X8 TYPE2 NON-SLIT	
#2	7-621-775-40	SCREW +PTT 2.6X8 (S) (BZN-N)	
#3	7-621-255-25	SCREW +PTT 2X4 (S)	
#4	7-621-770-67	SCREW +PTT 2.6X8, GROUND POINT	
#5	7-682-548-04	SCREW +PTT 3X8 (S)	
#6	7-621-773-95	SCREW +PTT 2.6X6 (S)	
#7	7-624-102-04	STOP RING 1.5, TYPE -E	
#8	7-624-104-01	STOP RING 2.0, TYPE -E	
#9	7-624-118-01	RING, RETAINING E-2.5	
#10	7-685-135-19	SCREW +P 2.6X10	
#11	7-621-775-08	SCREW +B 2.6X3	
#12	7-621-255-15	SCREW +P 2X3	
#13	7-621-770-XX	SCREW +PTT 2.6X8 (S) (CZN-N)	
#14	7-627-553-88	SCREW, PRECISION +P 2X7	
#15	7-685-106-19	SCREW +P 2X10 TYPE2 NOTN-SUT	
#16	7-621-255-40	SCREW +P 2X6	
#17	7-621-722-10	SCREW +B 2X4	

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Mobile Electronics Group

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